reſt of mankind, inculcated by the braminical religion, we are to aſcribe the long duration of the Hindoo religion and cuſtoms; which are only to be extirpated, together with the very people, among whom they prevail: and which have been proof againſt the enthuſiaſm and cruelty of the Mahomedan conquerors; nay more, have taught a leſſon of moderation to thoſe conquerors; who at laſt ſaw no danger ariſing to the ſtate, from a religion that admitted no proſelytes.

We are at the firſt view ſurpriſed to find that Arrian, who profeſſes to treat of India, ſhould confine himſelf to the deſcription of a particular part only; while he had authors before him, who had treated the ſubject at large. It may, however, be accounted for, in this manner, that he choſe to follow thoſe only, who had been eye-witneſſes to what they wrote; not compilers: and it is pretty clear that his account of India, is meant chiefly to illuſtrate the hiſtory of his hero. The following particulars, ſelected from among others, will ſhew to thoſe who are converſant with India, how nearly the ancient inhabitants, reſembled the preſent. 1. The ſlender make of their bodies. 2. Their living on vegetable food. 3. Diſtribution, into ſects and claſſes: and the perpetuation of trades in families. 4. Marriages at ſeven years of age: and prohibition of marriages between different claſſes. 5. The men wearing ear-rings; parti-coloured ſhoes; and veils, covering the head, and great part of the ſhoulders. 6. Daubing their faces with colours. 7. Only the principal people having umbrellas carried over them. 8. Two-handed ſwords: and bows, drawn by the feet. 9. Manner of taking elephants; the ſame as in the preſent age. 10. Manufactures of cotton, of extraordinary whiteneſs. 11. Monſtrous ants: by which the *Termites*, or white ants are meant; though exaggerated. (Herodotus Book III, alſo mentions the ants: and his account is more extravagant than Arrian's.) 12. Wooden houſes, on the banks of large rivers; to be occaſionally removed, as the river changed its courſe. 13. The *Tala* tree, or

Tal; a kind of palm. 14. The Banian (or Burr tree) and the Indian devotees ſitting under them.

We may perceive, however, on a reference to Arrian, that in many of the above particulars, he had either been indiſtinctly informed, or elſe, miſ-informed; as in the caſe of the Tal tree; the white ants (which he diſcredits, at the time he relates it) and the manner in which the people daub their faces. The wooden houſes, are, as far as I know, peculiar to the ſide of the Indus; and are remarked to be ſo, in the Ayin Acbaree. Arrian informs us, that he took his account of India from Nearchus and Megaſthenes. In the account of the wooden houſes, it may be perceived that he followed Nearchus; who ſeeing them on the ſide of the Indus, concluded they were in uſe, every where elſe. As to Megaſthenes, Arrian thought he had not travelled far over India; although farther than Alexander's followers. This opinion may ſerve partly to explain, why Arrian did not preſerve the journal of Megaſthenes, by inſerting it in his hiſtory of Alexander; or in his account of India.

His geography of India relates chiefly to the northern parts, or thoſe ſeen by Alexander and Megaſthenes. And his catalogue of rivers, moſt of which are alſo to be found in Pliny, and among which we can trace many of the modern names, contain only thoſe that diſcharge themſelves into the Ganges or Indus: ſuch as *Cainas*, the Cane; *Coſſoanus*, Coſa, or Coſs; *Sonus*, Soane; *Condochates*, Gunduck; *Sambus*, Sumbul, or Chumbul; *Agoramis*, Gogra; *Commenaſes*, Caramnaſſa, &c. &c.

Of the different hiſtories of Alexander that have travelled down to us, that by Arrian appears to be the moſt conſiſtent; and eſpecially in the geography of Alexander's marches, and voyage in the Panjab; which country, by the nature of its rivers, and by their mode of confluence, is particularly favourable to the taſk of tracing his progreſs. Diodorus and Curtius, had, or ought to have had, the ſame materials before them, as Arrian: that is, the journals or

relations

relations of Ptolemy and Ariſtobulus; who as friends and companions of Alexander, had opportunities of being well informed. We may conclude alſo, that there were among the followers of Alexander, journaliſts of a very different ſtamp; and indeed, the experience of our own days, furniſhes us with examples enough of that kind, to make it probable: and there are alſo to be found, compilers, who according to their taſtes and diſpoſitions, prefer the relation of the marvellous, to thoſe of the ſober and rational kind. Such as theſe, we may conceive Diodorus and Quintius Curtius to be; the latter particularly, under whoſe hand, every incident grows into a miracle or wonder. Arrian too, relates his wonders; but in ſuch a manner, as not to commit himſelf: or, as if he meant rather not to withhold what he thought himſelf bound to communicate, than as if he believed them himſelf, or wiſhed to inculcate a belief of them, in others.

It is to be regretted that Arrian did not preſerve the journal of Megaſthenes, as well as that of Nearchus. The loſs of Bæton's, or Biton's book, which contained the geography of Alexander's marches, is alſo to be regretted. It exiſted in the time of Pliny, who quotes him: but I think, if Arrian had ſeen it, he would have been more particular in his geography, in certain places; as he ordinarily, ſtudies to be. Certainly, Arrian had not read Herodotus attentively: otherwiſe he would not have paſſed over in ſilence, the voyage of Scylax, down the Indus; nor repreſented his hero, as being ignorant of ſo curious a fact as the tides muſt have appeared, to thoſe who read the ſame book. But that he had read part of Herodotus, is evident by his quoting his opinion, reſpecting the delta of the Nile; and by an alluſion to his account of the ants that dug up gold, in India, &c.

There is no reaſon to doubt that the Hindoo or Braminical religion was univerſal over Hindooſtan and the Deccan, before the time of Alexander's conqueſt, if we regard the notices afforded by Herodotus and Arrian. Nor is it more extraordinary that one religion ſhould

ſhould prevail over India, although compoſed of diſtinct governments, than that the Chriſtian religion ſhould prevail over a larger tract in Europe; or the Mahomedan over a ſtill larger tract in Europe, Aſia, and Africa. But although there might be an univerſality of religion, there were, as the learned well know, many diſtinct languages: and hiſtory, both ancient and modern, gives us the moſt poſitive aſſurances, that India was divided into a number of kingdoms or ſtates, from the time of Herodotus, down to that of Acbar. Not only Herodotus, Diodorus, Pliny, and Arrian, are poſitive, as to this point; but even Abul Fazil, who compoſed a hiſtory of the Indian provinces, in the reign of Acbar, in the 16th century. It is probable, that the almoſt univerſality of religion, and the union of ſo large a portion of this vaſt region, under the family of Tamerlane (particularly under Aurungzebe) has occaſioned an idea, though a very erroneous one, that the Mogul empire, ſo called from the Mogul (or Mongul) dynaſty, or that of Tamerlane, was always under one head.

But whatever kind of diviſion may have taken place in the reſt of Hindooſtan, there appears to have been, generally, a large empire or kingdom, which occupied the principal part of that immenſe valley or plain, through which the Ganges takes its courſe: the capital of which has fluctuated between Delhi and Patna, as the limits of the empire have varied. That ſuch a one does not exiſt at preſent, is probably owing to the Bengal provinces being in the hands of foreigners: but if we conſider the union of intereſts between Bengal and Oude, the caſe is not eſſentially altered. Leave matters to their natural courſe, the whole valley will form one ſtate again. The kingdom I ſpeak of, was that of the PRASII and GANGARIDÆ, in the times of Alexander and Megaſthenes: and which was very powerful, as appears by the ſtrength of its armies, and the number of elephants trained to war. It ſeems to have extended weſtward to the Panjab country: and if *Palibothra* ſtood on the ſite of Patna, as late accounts ſeem to render probable (ſee page

50 of

50 of the Memoir) we may ſuppoſe that it included at leaſt, part of Bengal. In effect, the kingdom of the Praſii could not well be of leſs dimenſions than France: and the ſtate of it (according to Arrian) was rich, the inhabitants good huſbandmen, and excellent ſoldiers; governed by nobility, and living peaceably; their rulers impoſing nothing harſh, or unjuſt, upon them. Thoſe who are fonder of contemplating the ſilent happineſs of a whole people, than of tracing the ſteps of a conqueror, will be gratified on reflecting that Alexander ſtopt ſhort, on the borders of the country above deſcribed.

The trade from the weſtern world to India, which has ever enriched thoſe who have carried it on, has often changed hands, and been turned into different channels. A paſſion for Indian manufactures and products, has actuated the people of every age, in lower Aſia, as well as in the civilized parts of Europe: the delicate and unrivalled, as well as the coarſer and more uſeful, fabricks of cotton, of that country, particularly ſuiting the inhabitants of the temperate regions, along the Mediterranean and Euxine ſeas. To this trade, the Perſian and Arabian gulfs, opened an eaſy paſſage; the latter particularly: as the land carriage between the Red ſea and the Nile; and between the Red ſea and the Mediterranean, took up only a few days. It is highly probable, and tradition in India, warrants the belief of it, that there was from time immemorial, an intercourſe between Egypt and Hindooſtan; at leaſt, the maritime part of it: ſimilarity of cuſtoms in many inſtances (as related of the ancient Egyptians, by Herodotus, and which can hardly be referred to phyſical cauſes) exiſting in the two countries. The intercourſe, we may conclude, was carried on, by ſea; if we conſider the nature of the intervening countries, and the ſeat of the manufactures: and it might, moreover, be expected, that a nation ſo enterpriſing as to undertake the circumnavigation of Africa (as there can be no doubt, the Egyptians did, under the Pharaohs) would ſcarcely leave unexplored, the coaſts of a ſea, ſo much

nearer; and which, from the regularity of the periodical winds, was ſo eaſy of acceſs. Whether Solomon's profitable traffick included that of India, there are, I believe, no means of determining; but it appears highly probable that it did: as alſo that the *voyages of three years*, made by the ſhips that arrived at *Tarſhiſh* (Tarſus, in Cilicia) were to the remote parts of Africa. We muſt carry in our minds, this fact, that Solomon's fleets were diſpatched from the ports of the Red ſea, as well as from thoſe of the Mediterranean: David's conqueſt of Idumea (Edom) giving him poſſeſſion of the ports in the north-eaſtern branch of the Red ſea: that is, Ezion-gaber, &c. Tyre was founded about two centuries and a half, before this period: and from the very flouriſhing ſtate ſhe was in, under Hiram, the cotemporary of Solomon, it may be concluded that her merchants poſſeſſed the greateſt part of the trade of the known world, at that time; and the trade of the eaſt among the reſt, in all probability. Commerce being ſo ready a way to riches, it is no wonder that ſo enlightened a Prince as Solomon, ſhould profit by the example of his neighbours: and avail himſelf of his ſituation, from the enlarged ſtate of his kingdom, which extended from the Euphrates to the Red ſea; and to the borders of Egypt (1 Kings, chap. 4. ver. 24: and 1 Chron. chap. 18. ver. 13.) and which opened to him, two of the great avenues to the eaſt, by way of the Red ſea, and the Perſian gulf. M. Volney's idea, reſpecting the object that Solomon had in view, when he took poſſeſſion of Tadmour, or Palmyra, is, in my opinion, no leſs probable, than ingenious: namely, to uſe it as an emporium of the Eaſt India trade, by way of the Perſian gulf, and the courſe of the Euphrates. This was about 1000 years before our æra. But Solomon's trade, notwithſtanding, was merely temporary: and reminds us of ſome feeble efforts, made in our own days, by an inland Prince, who (in this reſpect, like Solomon) poſſeſſes two ports ſituated in oppoſite ſhores of the continent; and who is conſtrained to borrow the mariners of the modern Tyre, as Solomon did thoſe of the ancient.

Whether

Whether the Indian trade was carried on at the ſame time, by the Tyrians and Egyptians, as well as by the Judeans, cannot now be aſcertained; but I think it probable that it might; and that, both by the route of the Perſian gulf, and the Red ſea; as we have ſeen it, in our days. But whatever might be the mercantile ſtate of Tyre, in the days of Solomon, we find it about a century after, eſtabliſhing a colony at Carthage; and about three centuries after that, its greatneſs was proverbial. I mean, about the date of Ezekiel's prophecy concerning it.

When Tyre fell into the hands of Alexander (Before Chriſt 332, and about 260 after the time of Ezekiel) that city was in full poſſeſſion of the Indian commerce. The route of their trade from India, was up the Red ſea to *Eziongaber*; and thence acroſs the deſerts to *Rhinocorura*, a town on the Mediterranean, and on the common frontiers of Paleſtine and Egypt: both of which countries were then in the hands of the Perſians. From Rhinocorura, the goods were carried by ſea to Tyre, and circulated from thence. The deſtruction of Tyre by Alexander, and the conſequent foundation of Alexandria, turned the trade into a new channel: or rather perhaps, returned it into its ancient one, Egypt. The Ptolemies, into whoſe hands Egypt fell, on the diviſion of Alexander's empire, beſtowed a foſtering care on the new emporium, which alſo became the capital of the kingdom. Ptolemy Philadelphus conſtructed a canal from *Arſinoe* (near the preſent Suez) to the Peluſiac branch of the Nile: and afterwards, poſſibly becauſe of the tedious and dangerous navigation of the upper part of the Red ſea, founded the city of *Berenice* on the weſtern ſide of that ſea, and nearly under the tropic (that is, 450 miles below Suez) from whence the merchandiſe was tranſported acroſs the deſert of Thebais, to Coptus on the Nile; and thence, down the ſtream of that river, to the neighbourhood of Alexandria; which thus became the centre of trade between the eaſtern and weſtern world; and, of courſe, one of the moſt opulent cities in either. It would appear,

that under the Ptolemies, the Egyptians extended their navigation to the extreme point of the Indian continent, and even ſailed up the Ganges to Palibothra.

Alexandria held its rank as an emporium, even after Egypt became a Roman province: and preſerved it in a conſiderable degree, during the various revolutions that happened in the eaſt *; until the *re-diſcovery* of the paſſage round the ſouth point of Africa, about 300 years ago, turned the bulk of the Indian trade into an entire new channel; and from which it is not likely ever to be diverted.

Berenice continued to be the port of outfit for the Roman Eaſt India trade in the time of Pliny (A. D. 79) who details, in his ſixth book, the account of the navigation to India; with many curious particulars relating to it: and among other matters, we may gather, that it was a complaint even in his time, that the trade to India, drained Europe of its riches. Pliny ſays, that it coſt 50 millions of ſeſterces every year (at 1s. 3d$\frac{1}{4}$, 3,275,000l.) and yet the trade is not deſcribed as being extended to every part of India. I ſhould apprehend a miſtake in this ſtatement: as the prime coſt of the cargoes brought into England, from India and China, in any one year, has been little above three millions, freight included; and one would not expect that the value of the goods imported by the Romans, was equal to that, imported from China and Hindooſtan, into England.

From Berenice it was reckoned 30 days navigation, down the Red ſea, to *Ocelis* (Gella) juſt within the ſtrait of Bab-el-mandel. Another port was *Muza* (Mocha) but Ocelis was reckoned the beſt, and moſt commodious for departure. From thence to *Muziris*, the firſt port of merchandiſe in India, was 40 days ſail: ſo that, as they left Berenice about midſummer, they might arrive in India in the latter end of Auguſt, when the violence of the S W monſoon was abated; and the coaſting navigation, ſafe and eaſy.

* The Venetian trade to the eaſt, was by the channel of the Red ſea, and Alexandria.

Pliny

Pliny does not forget to mention that they departed with the *west* wind: and these 40 days sailing, would be about 15 days *run*, for an European ship, in the modern style of navigating: being about 1750 marine (the same as geographical) miles, on a straight course.

We are told that the first of these voyages were made by coasting the Arabian shore to the promontory *Syagrus* (Cape Rasalgate) and thence along the coast of Persia to the mouth of the Indus, &c. In the next age, a shorter and safer course was discovered: for from Cape Rasalgate, the ships made a direct course to *Zizerus*, a port in India; situated, as would appear by circumstances, on the northern part of the Malabar coast. After this, a direct course was made from the outlet of the Red sea to *Muziris*, as above related. It is probable, after all, that they coasted a great part of the Arabian coast, in order to reduce the length of that part of their course, that lay out of the sight of land: unless the habit of depending on the compass, has, in my idea, increased the difficulty of shaping a course without one.

Muziris is said by Pliny to have been an incommodious place of merchandise, because the shallowness of the port, or river's mouth, made it necessary to discharge or take in the cargo in small boats, at a distance from the emporium: and besides, there was danger from the pirates, at *Nitria*. Another port, more commodious and better stored with merchandise, was named *Barace* (or *Becare*) in the country of the *Niconidians*; and as the pepper of *Cottonara* was brought to this place in small boats, it may be concluded that Barace was within, or near to, the country of CANARA; which produces the best pepper in those parts, at the present day. After much study and investigation, I cannot apply to any particular spot, these ports of Muziris and Barace: for the Malabar coast abounds with ports of the above description: and it must be considered, too, that a shallow port for one of the Roman traders, which, in all probability, were smaller than ours, would be reckoned, in the present times, no port at all. The circumstances of the pirate

f 2 coast,

coaſt, and pepper country, however, confine us within certain limits: for, in the courſe to Muziris, the traders paſſed near the pirate's ſtations; and as theſe, by the lights which I have received from Pliny and Ptolemy, were nearly the ſame as the preſent (that is, between Bombay and Goa) I conceive the trading ports meant by Pliny, were ſituated between Goa and Tellicherry. The Periple of the Indian ſea, and the geography of Ptolemy, throw ſome faint light on the ſubject.

Ptolemy's ideas are theſe: *Tyndis* (going ſouthward) ſucceeds *Nitria*; then *Muziris*; *Becare* (which is one of the readings of *Barace) Melcynda*, or *Nelcynda*; *Cottiara*; and then *Comaria*, or Cape Comorin; whoſe proper name is *Komrin* or *Komry*. And the Periple (my information is from M. D'Anville) enumerates in the ſame order, *Tyndis*, *Muziris*, and *Barace:* allowing 500 ſtadia between each, reſpectively. No three places appear more convenient to this relative diſpoſition, and to the circumſtances of the pirate coaſt and pepper country, than Goa, Meerzaw (vulgarly, Merjee) and Barcelore, or Baſſinore. The firſt, namely, Goa, is juſt clear of the pirate coaſt: having Newtya, poſſibly the *Nitrias* of Pliny and Ptolemy (near which the pirates cruiſed on the Roman veſſels in their way to Muziris) on the north of it. The ſecond place, Meerzaw, or Merjee, has even ſome affinity in ſound, with Muziris; and is ſituated on a river, and at ſome diſtance from the ſea. And Barcelore, or Baſſinore, which may poſſibly be Barace, is one of the principal pepper factories, at preſent: and therefore anſwers ſo far to Barace. Nelcynda, I take to be Neliſuram: and do not, with M. D'Anville, ſuppoſe Barace to be the port of Nelcynda, but a diſtinct place. It is ſaid by Pliny, to be ſituated within the kingdom of *Pandion*; which is pretty well underſtood to be Madura: or to be compriſed, at leaſt, within the ſouthern part of the peninſula: and therefore, the farther ſouth we go for Nelcynda, the leſs we are likely to err. But even all this is conjecture, as far as relates to particular poſitions: nor is it of much

conſe-

conſequence: for we are clear that the ports of merchandiſe, muſt be ſituated, in or near to the country of Canara, the *Cottonara*, or pepper country of Pliny: that is, between Goa and Tellicherry; as before obſerved.

The ſhips returned from the coaſt of India, about the month of December, with the north-eaſt monſoon: and when entered into the Red ſea, they had a ſouth, or ſouth-weſt wind: ſo ſays Pliny. The voyage was made much within the compaſs of a year: and the profits are ſtated to be immenſe: but the particulars of the cargoes are not recorded.

There are no notices in Pliny (as far as I know) concerning any voyages of the Romans, to the gulf of Bengal, or to the peninſula of Malay (the golden Cherſoneſe) although it is clear from Strabo, who wrote before Pliny, that the Ganges had then been ſailed up, as high as Palibothra. Ptolemy's geography, ſaid to be compoſed about 60 years after Pliny, contains evident proofs that both of the Indian peninſulas had been explored: ſuch is the mention of the pearl fiſhery, between Ceylon and the continent; the diamonds found on the banks of the Sumbulpour river; and the point from whence ſhips that traded to the Malay coaſt, took their departure (ſuppoſed to be Point Gordeware:) beſides many names, that can hardly be miſunderſtood in the application of them; as *Arcati*, the capital of the *Soræ* (or *Sora-mandalum*, from whence corruptly *Choromandel) Meſolia*, the diſtrict which contains Maſulipatam; the river Cauvery, under the name of *Chaboris*, &c. The peninſula beyond the Ganges is alſo deſcribed in Ptolemy, as far as Cochin China, or perhaps, to the borders of China, or *Sinæ*. (See M. D'Anville's Antiquité Geographique de L' Inde.) We may here obſerve alſo, by the way, that the iſlands ſcattered over the gulf of Bengal, in Ptolemy, and probably meant for the Andaman and Nicobar iſlands; are moſt of them ſaid to be inhabited by *Anthropophagi:* and this idea has alſo been adopted by the modern navigators. Other iſlands, which may be meant either

for

for certain parts of Sumatra, or for ſome of the iſlands that lie extended along the weſtern ſide of it, are alſo branded with the ſame character: and we find by Mr. Marſden, that it is generally believed, that man-eaters exiſt in Sumatra, even at this day. I refer the *Bonæ Fortunæ* iſland to the Great Andaman; and the 10 *Maniolæ*, to the northern Nicobars; being juſt the number of them: the 5 *Baraſſæ*, and 3 *Sindæ* iſlands, together with the 3 *Saba-dibæ*; are the iſlands I allude to, as being either parts of Sumatra, or iſlands near it.

SKETCHES *of the Hiſtory of* HINDOOSTAN, *ſince the Commencement of the* MAHOMEDAN CONQUESTS.

THERE is no known hiſtory of Hindooſtan (that reſts on the foundation of Hindoo materials or records) extant, before the period of the Mahomedan conqueſts: for either the Hindoos kept no regular hiſtories; or they were all deſtroyed, or ſecluded from common eyes by the Pundits. We may judge of their traditions, by that exiſting, concerning Alexander's expedition: which is, that he fought a great battle with the Emperor of Hindooſtan, near Delhi: and though victorious, retired to Perſia, acroſs the northern mountains: ſo that the remarkable circumſtance of his ſailing down the Indus, in which he employed many months, is ſunk altogether. And yet, perhaps, few events of ancient times, reſt on better foundations, than this part of the hiſtory of Alexander (ſee Section III. of the Memoir) as appears by its being ſo highly celebrated, not only by his cotemporaries, but by ſeveral of the moſt celebrated authors, for ſome centuries following. As for the notices above referred to, in Herodotus, Pliny, and Arrian, &c. they

they are rather tranſient views of the then ſtate of Hindooſtan, with a general account of manners and cuſtoms; than a hiſtory. Not but that theſe accounts are infinitely more pleaſing and ſatisfactory, than a hiſtory would have been, if it contained nothing more than that of the Mahomedan conqueſts: that is, an account of battles and maſſacres: an account of the ſubverſion of (apparently) one of the mildeſt, and moſt regular governments in the world, by the vileſt and moſt unworthy of all conquerors: for ſuch the Mahomedans undoubtedly were, conſidered either in reſpect to their intolerant principles; contempt of learning, and ſcience; habitual ſloth; or their imperious treatment of women: to whoſe lot, in civiliſed ſocieties, it chiefly falls, to form the minds of the riſing generation of both ſexes; as far as early leſſons of virtue and morality may be ſuppoſed to influence them.

The travels of Coſmas in the 6th century, and of the two Mahomedan travellers in the 9th, afford few materials for hiſtory: and but little can be gleaned from Marco Paulo, who croſſed the peninſula, and went up the weſtern ſide of it, to Guzerat, in the 13th century. Indeed, it is exceeding difficult to refer any incident related in this laſt author, to any particular country; as the geography of his travels is an enigma, for the moſt part.

It is chiefly to Perſian pens that we are indebted for that portion of Indian hiſtory, which we poſſeſs. The celebrated Mahomed Feriſhta, early in the 17th century, compiled a hiſtory of Hindooſtan, from various materials; moſt of which, in the idea of Col. Dow (who gave a tranſlation of this hiſtory to the world, about 20 years ago) were collected from Perſian authors. The Mahabarut, an hiſtorical poem of high antiquity, and which I underſtand, Mr. Wilkins is now tranſlating from the original Sanſcrit (as he has already done an epiſode of it, under the title of Bhagvat Geeta) is ſuppoſed to contain a large portion of intereſting hiſtorical matter: but if the father of Grecian poetry made ſo total a change in the ſtory of Helen, in order to give a full ſcope to his imagination;

tion; what ſecurity have we that another poet may not miſlead us in matters of fact; that is, in all that is valuable in hiſtory, conſidered as ſuch? Mr. Dow was far from ſuppoſing that the Hindoos were deſtitute of genuine hiſtories of their own country: he was not indeed acquainted with the Sanſcrit language, in which they muſt be written, if at all: but founded his belief on the information of people on the ſpot. If the ſpecimens of early Hindoo hiſtory given in the Ayin Acbaree, are akin to thoſe which Mr. Dow had in contemplation, I confeſs I can place no dependance on them. The moſt valuable part of Feriſhta's hiſtory, he allows to be that, poſterior to the firſt Mahomedan conqueſts, about the year 1000: and the following abſtract of it is offered to the reader's notice, in order to fix in his mind, an idea of the ſucceſſive changes in the ſtate of the empire of Hindooſtan; which from a pure Hindoo government, became a Mahomedan one; and continued to be ſo, under various dynaſties of Monarchs, from Perſia, Afghaniſtan, and Tartary; until the beginning of the preſent century: theſe Princes, moreover, adding to the original country of Hindooſtan, all the other provinces ſituated within the Ganges. This unweildy ſtate then dropping to pieces, anarchy ſucceeded; which in moſt parts of it, is ſcarcely compoſed at preſent: and which had nearly given riſe to a new Hindoo empire, under the Mahrattas: but the intervention of foreign powers, prevented it. Laſtly, one of thoſe foreign powers ſeizing on the faireſt provinces, and taking the lead in the empire, although removed from it, the diſtance of an actual route of fifteen thouſand miles *!

Even after the commencement of the Mahomedan conqueſts, we find little more in Feriſhta, ſave the hiſtories of the empire of Ghizni (or Gazna) and Delhi; until the ſubjection of all Hindooſtan, by the Patan Emperors in the beginning of the 13th century: for Hindooſtan continued to be divided into a number of ſeparate

* No part of the Roman empire, was diſtant from its capital, by the moſt circuitous route, more than 2800 miles.

king-

kingdoms, each of which, required a particular hiſtory: and of which we know only ſuch parts of it, as were interwoven with the hiſtory of the conquering country. Many of theſe old Hindoo kingdoms, bore the ſame names as the preſent ſoubahs (or vice-royalties) do; and had, probably, nearly the ſame limits. The hiſtory of the Deccan, is yet more obſcure than that of Hindooſtan: being brought into view later, as the Mahomedan conqueſts extended thither: and which began to encroach on it about the year 1300, although the entire conqueſt of it, was not made until late in the 17th century.

It may be obſerved that the firſt Mahomedan conqueror who made any eſtabliſhments; that is, Mahmood, found little leſs difficulty in ſubduing the country, than the latter conquerors did; when ſo many kingdoms were united under the Patan Emperors: for theſe kingdoms, now become provinces, were too extenſive, and compoſed of materials too diſcordant to unite properly: not to mention, that they were never long enough united, to produce the happy effects reſulting from a long period of intercourſe under one common head, and which aſſimilates the whole into one maſs, like the French or Britiſh provinces. And this muſt ever be the caſe, in very extenſive empires, where a delegation of great powers, and diſtant ſituation, prepares the provinces for independency, whenever the ſupreme government happens to be placed in weak hands. Hence, Hindooſtan, even under the Moguls, may be conſidered only as a collection of tributary kingdoms; each accuſtomed to look no farther than to its own particular Viceroy; and, of courſe, ever in a ſtate to rebel, when the imbecility of the Emperor, and the ambition of the Viceroy, formed a favourable conjuncture. To this muſt be attributed the little reſiſtance that was made to the arms of Tamerlane, Baber, Humaioon, and Nadir Shah; although ſo many provinces were at thoſe times united, under one Prince.

The firſt Mahomedan conqueſts that led to permanent eſtabliſhments in Hindooſtan, were thoſe of the beforementioned Mahmood, Emperor of Ghizni: for I make a diſtinction between *theſe*, and the firſt *irruptions* of the Mahomedans; which left ſuch ſlight traces behind them, as to be ſcarcely apparent. Among others, was that of the Caliph Valid in the firſt century of Mahomedaniſm. The empire of Ghizni was founded by Abiſtagi, Governor of Koraſan (A. D. 960) who revolted from the King of Bucharia; whoſe anceſtor, in his turn, had ariſen to power, on the ruins of the Caliphat empire, about 87 years before. Ghizni conſiſted chiefly of the tract, which compoſed the kingdom of Bactria, after the diviſion of Alexander's empire: that is, the countries lying between Parthia and the Indus; and ſouth of the Oxus *. Ghizni (or Gazna) a city placed among the weſtern ſources of the Indus, and not far from the Indian Caucaſus, was the reputed capital; though Balk or Balich claimed this honour, likewiſe.

Mahmood (commonly ſtyled Sultan) was the third in ſucceſſion from Abiſtagi: and was himſelf the ſon of Subuctagi, who appears to have meditated the conqueſt of the weſtern part of India; and, like Philip, left his projects, as well as his kingdom, to his ſon. Subuctagi had carried his arms acroſs the Indus, and ravaged the Panjab; but made no eſtabliſhments: for we find, that at the time of his ſon Mahmood's invaſion, a Prince of the Bramin race, or religion, named Jeipal, poſſeſſed the whole country, along the eaſt ſide of the Indus, to Caſhmere; and that he had the Kings of Delhi, Agimere, Canoge, and Callinger, for allies: ſo that it may be concluded, from the circumſtance of the frontier provinces being under a Hindoo government; and from the ſtate of the Hindoo religion, throughout the ſcene of Mahmood's conqueſts; that the Mahomedans, whatever ravages they might have committed, previous to this time, had not, as we have before obſerved,

* The reader is requeſted to conſult the map at page 102, for the countries lying between the Indus and the Caſpian ſea.

formed

formed any eſtabliſhment in Hindooſtan: but that the whole country was perfectly HINDOO, at the time of Mahmood's conqueſt. It muſt be obſerved, that I do not claſs the country of Cabul, or any of the provinces on the weſt of the Indus, as belonging to Hindooſtan proper.

Before Mahmood began his firſt expedition into India, which was only three years after his acceſſion, he extended his empire northward, by reducing Bucharia; from whoſe king, his anceſtor had revolted, as has been obſerved above.

In A. D. 1000, he entered Hindooſtan: but in the courſe of eight years, he made no further progreſs than Moultan. The people of Moultan, who were the *Malli*, and *Catheri* (that is, the Kuttry or Rajpoot tribe) of Alexander, muſt have preſerved their ancient ſpirit, to be able to oppoſe, for ſo long a time, ſuch formidable armies, headed by ſo furious an enthuſiaſt. In 1008, we find all the Hindoo Princes, from the weſt of the Ganges to the river Nerbudda, united againſt him, for the common defence of their religion; the extirpation of which, was to Mahmood, an object equal to that of the acquiſition of territory, or ſubjects. It may be doubted whether the acquiſition of ſubjects, the rational end of conqueſt, ever enters into the minds of barbarous conquerors; ſuch as this Mahmood, Tamerlane, or Nadir Shâh. One would rather ſuppoſe the contrary; or, at leaſt, that they were totally indifferent about it, by their maſſacres and exterminations. The confederate Hindoos were defeated: and Mahmood's firſt eſſay towards effecting the downfall of their religion, was the deſtruction of the famous temple of Nagracut, in the mountains bordering on the Panjab country. His next expedition, being the ſixth, was in 1011; when Tannaſar, a more celebrated place of Hindoo worſhip, on the weſt of Delhi, experienced a like fate with Nagracut; and the city of Delhi itſelf, was taken at the ſame time. In 1018, he took Canoge, and alſo deſtroyed the temples of Matra, or Matura, (the *Methora* of Pliny) a city of high antiquity,

quity, and no lefs an object of religious veneration, near Agra. After this, turning his arms againft the Rajpoots of Agimere, he found either them, or their country, which is full of mountains and faftneffes, too ftrong for him.

His twelfth expedition, in 1024, was fatal to the celebrated temple of Sumnaut, in the peninfula of Guzerat, adjoining to the town of Puttan, on the fea coaft; and not far from the ifland of Diu, now in the hands of the Portuguefe. His route was by Moultan and Agimere, the citadel of which he was compelled to leave in the hands of the enemy: and in croffing the defert, between it and Moultan, he hazarded the lofs of his army, for want of water. The deftruction of Hindoo temples, with their Priefts and votaries, appears to have afforded this monfter the higheft delight. Nothing offends our feelings more, than the progrefs of deftruction urged by *religious zeal:* as it allows men to fuppofe themfelves agents of the Divinity; thereby removing thofe checks which interfere with the perpetration of ordinary villiany; and thus makes confcience a party, where fhe was meant to be a judge. Such alfo was Tamerlane: but to the alleviation of the misfortunes of the Hindoos, the enthufiafm of Mahomedanifin had loft its edge, before the invafion of Nadir Shah. Had this predominated in his favage nature, the whole fcene of his conquefts, muft have remained a folitary defert.

The city of Nehrwalla, the ancient capital of Guzerat, together with that whole peninfula, fell into the hands of Mahmood; who died four years afterwards (1028) poffeffed of the eaftern, and by much the largeft part of Perfia; as well as, nominally, of all the Indian provinces from the weftern part of the Ganges, to the peninfula of Guzerat; and from the Indus, to the mountains of Agimere: but the Panjab was the only part of it, that was fubjected to regular government, under the Mahomedans; as being in the vicinity of the Ghiznian empire. As for the Rajpoots of Agimere, they ftill preferved their independance, among their rugged mountains,

tains, and close vallies; and not only them, but in a great measure, down to the present time: being in respect of Hindoostan, what the country of Switzerland, is to Europe; but much more extensive, and populous. From Mahmood to Aurungzebe, the Indian conquerors were contented with the nominal subjection of those hardy tribes: among whom, military enthusiasm, grafted on religious principles, is added to strength and agility of body; and this race is disseminated over a tract equal to half the extent of France. It goes under the general name of Rajpootana: and is the original country of the Mahrattas; who about 30 years ago, aspired at universal empire in Hindoostan.

The Ghiznian empire, subject to the same causes of decay, with other unweildy states of rapid growth, was in 1158, forcibly divided: the western and largest part, and which still retained the ancient name of the empire, being seized on by the family of the Gaurides (so denominated from Gaur, or Ghor, a province and city, lying beyond the Indian Caucasus) while the provinces contiguous to both shores of the Indus, remained to Chusero, or Cusroe, who fixed his residence at Lahore *. And even his posterity, were in 1184, driven out of their kingdom, by the Gaurides. The Mahomedans, thus become nearer neighbours to the Hindoos, by fixing their residence at Lahore, extended, as might be expected, their empire eastward; Mahomed Gori, in 1194, perpetrating, in the city of Benares, the same scenes as Mahmood had before done, at Nagracut and Sumnaut. Benares was regarded as the principal university of Braminical learning; and we may conclude that about this period, the Sanscrit language, which was before the current language of Hindoostan, began to decline in its purity, by the admixture of words from that of the conquerors; until the language of Hindoostan became what it now is: the original Sanscrit, preserved in their ancient writings, becoming a dead language. Such

* For the dates of the reigns of the Emperors of Hindoostan, the reader is referred to a Chronological Table, at the end of the Introduction.

muta-

mutations have taken place in every country, where the conquerors have been numerous enough to effect it: the Saxon language was at the same period suffering from the Norman conquest, what the Sanscrit did from the Ghiznian. Mahomed Gori also carried his arms to the south of the river Jumna, and took the fortress of Gwalior; which then gave name to a kingdom, that has since composed nearly the soubah of Agra: he also reduced the eastern part of Agimere.

The death of this Emperor, in 1205, occasioned a new division of the Ghiznian empire, the Persian part remaining to Eldoze, and the Indian part to Cuttub, who founded the Patan or Afghan dynasty in Hindoostan. The Afghans originally inhabited the mountainous tract lying between India and Persia, or the ancient Paropamisus. Before the elevation of Cuttub, to the throne, he had carried his arms, under Mahomed Gori, into Agimere and Guzerat. Lahore was his capital, originally: but the necessity of fixing the imperial residence, nearer to the centre of the new conquests, occasioned him to remove to Delhi. It may be observed of the capitals of states, in general, that such as are neither emporiums of trade, nor meant as citadels in the last resort, are (as it were) attracted towards the quarter, from whence hostility is either intended, or expected.

The Emperor Altumsh, who succeeded to the Patan throne, in 1210, completed the conquest of the greatest part of Hindoostan proper. He appears to be the first Mahomedan that made a conquest of Bengal; the government of which was from this time bestowed on one of the reigning Emperor's sons. It was during this reign (1221) that Gengiz Cawn, among his extensive conquests (perhaps the most so, of any conqueror in history) accomplished that of the empire of Ghizni; putting an end to the dynasty of Charasm, which then occupied that throne: and driving before him, the unfortunate Gelali, son of the reigning Emperor; who swam the Indus to avoid his fury. Gengiz, however, left Hindoostan undisturbed.

6 About

About A. D. 1242, the Moguls, or Munguls, ſucceſſors of Gengiz, who poſſeſſed, or rather over-run, the countries on the north-weſt of Hindooſtan, made ſeveral irruptions into it: and Turmechirin Khan, is reported by Sherefeddin (the hiſtorian of Timur) to have carried his arms into the Dooab; but without making any eſtabliſhment. Feriſhta takes no notice of the progreſs of this deſultory conqueror, but only deſcribes the inroads of the Moguls into the Panjab; which now frequently happened: although it was not till more than 150 years afterwards, that, under Timur, or Tamerlane, they penetrated to the centre of India. Feriſhta deſcribes alſo an irruption of Moguls into Bengal, by way of *Chitta* and Thibet, in 1244.

I have before obſerved, that the provinces of Hindooſtan were held rather as tributary kingdoms, than as provinces of the ſame empire: and that they ſeldom failed to revolt, when a favourable opportunity offered. In 1265, Malwa regained its entire independance from the crown of Delhi; having gradually ſhaken off the yoke, laid on it by Cuttub, in 1205: and the Rajpoots were on every occaſion, notwithſtanding their comparative vicinity to the capital, aſſerting their independency likewiſe. Of the ſtate of the internal government of Hindooſtan, a judgment may be formed, by the puniſhment inflicted on the Mewatti, or the Banditti tribe, which inhabit the hilly tract, within 80 miles of Delhi. In 1265, 100,000 of theſe wretches, were put to the ſword; and a line of forts was conſtructed, along the foot of their hills. Rebellions, maſſacres, and barbarous conqueſts, make up the hiſtory of this fair country, which to an ordinary obſerver, ſeems deſtined to be the paradiſe of the world: the immediate effect of the mad ambition of conquering more than can be governed by one man: the whole empire being portioned out to rapacious Governors, who domineering over the governed, until their ſpirits were ſufficiently debaſed; were at laſt able to perſuade them, that their common intereſt lay in taking up arms, to render theſe Governors independant:

dant: and indeed, had it brought them nearer to the point of having a regular, permanent, government, this might be true: but, in fact, it only subjected them to a new conqueror; or to the punishment of rebellion from the former one. It would appear as if the warm climates, and more especially the open countries, situated within them, were destined to be the seats of despotism: for that the climate creating few wants, and the soil being productive without any great exertion; the inhabitants of it do not possess those energies, that in a cooler climate prompt mankind to investigate their natural rights, and to assert them. This, however, is a point that I shall not venture to decide on; although I believe it is a fact not to be disputed, that throughout the known parts of the world, despotism prevails most in the warm climates. The Patan, Mogul, and Tartarian conquerors, in Hindoostan and China, however hardy at first, have in a course of ages, sunk into the same state of effeminacy with their subjects: and, in their turn, have, with them, received a new master. Let those who are in the habit of complaining of the severity of northern climates, reflect, that whatever physical evils it may produce, it matures the great qualities of the mind; and renders its inhabitants pre-eminent among their species: while a flowery poet, or a more flowery historian, is the most eminent production of the tropical regions.

While the Kings of Delhi were prosecuting their conquests in the east and south of Hindoostan, the provinces on the west of the Indus, were, o1 course, neglected; although not avowedly relinquished. It might have been expected, that so excellent a barrier as the upper part of the Indus, and the deserts beyond Agimere, would have induced an Emperor of Hindoostan, to give up, of choice, all the provinces that lay on the west of this frontier: and the neglect of so prudent a conduct, occasioned the peace of the empire to be often disturbed; and ended in their being forcibly taken away at last, by the Moguls: who, not contented with their new acquisitions on the west of the Indus, crossed that river and

invaded

invaded the Panjab: and ſo formidable did they appear to Feroſe II. that ſome tribes of them were permitted to ſettle in that country (A. D. 1292.) The reader will not forget the ſimilar conduct of the Roman Emperor Valens, with reſpect to the Goths, who were permitted to croſs the Danube, and ſettle in Thrace: and the ſimilitude is the more ſtriking, in that the Hindooſtan empire was afterwards conquered by the aſſiſtance of the deſcendants of thoſe Moguls. This Feroſe II. was of the tribe of Chilligi or Killigi (from Killige, near the mountains of Gaur) but is, nevertheleſs, included in the Patan dynaſty: the name Patan, or Pitan, being applied rather in a looſe manner, to all the tribes bordering on the common frontiers of India, Perſia, and the province of Balk: that is, the ancient province of *Paropamiſus*.

In 1293 this Emperor gave into the ſcheme of attacking the DECCAN; which, at this period, muſt be underſtood to mean the country lying generally to the ſouth of the Nerbudda and Mahanada (or Cattack) rivers: a tract nearly equal in extent to what he already poſſeſſed in Hindooſtan; and which extended from the ſhores of the Indus, to the mouth of the Ganges; and from the northern mountains, to Cattack, Sirong, and Agimere: the greateſt part of Malwa, with Guzerat, and Sindi, being then independant. The riches of the King of Deogire (now Dowlatabad) one of the principalities or ſtates of the Deccan, gave birth to this project; and the projector was Alla, Governor of Gurrah, which nearly bordered on the devoted country. The covetouſneſs of the Emperor made him embrace a propoſal, which eventually involved in it, his own ruin; for Alla afterwards depoſed him, by means of that very plunder.

Alla's firſt expedition was attended with the capture of Deogire (or Deogur) and with it, an incredible quantity of treaſure and jewels: with which, having increaſed his army, he depoſed and murdered the Emperor. We cannot help acknowledging the juſtice of this puniſhment; when we recollect the motives, on which

the expedition to the Deccan, was undertaken: and that moreover, the Emperor had been bribed by Alla, with part of the plunder, taken in a former predatory expedition to Bilſah.

When Alla (who was the firſt of the name) had poſſeſſion of the throne, in 1295, he began his plan of conqueſt, by the reduction of Guzerat; which, while it continued independant, was, by its local ſituation, a ſtrong obſtacle to his deſigns on the Deccan. Next, he reduced Rantampour, and Cheitore, two of the ſtrongeſt holds of the Rajpoots, in Agimere. This was the firſt time that Cheitore had fallen to the Mahomedans. In 1303, he alſo reduced Warangole, the capital of Tellingana, another principality of the Deccan; and comprehending nearly the preſent country of Golconda. This, as well as Cheitore, was a city and fortreſs of vaſt extent, and population. But in the midſt of theſe conqueſts, and probably the effect of them, the watchful and reſtleſs Moguls, from the oppoſite quarter, penetrated even to Delhi; and plundered the ſuburbs of it.

In the following year, the remainder of Malwa, was conquered: and in 1306, the conqueſt of the Deccan was reſumed, under Cafoor, the General of Alla; who proceeded to the Deogur country, by the route of Baglana, which he reduced in his way: and which Feriſhta * calls the country of the Mahrattas. Cafoor not only carried his arms into Deogur (Dowlatabad) and from thence into Tellingana, but into the Carnatic likewiſe, in 1310. By the Carnatic, is here meant the peninſula in general, lying on the ſouth of the Kiſtna river. It is not known, how far he penetrated, ſouthward, but he was directed by Alla, to reduce MABER, which we underſtand to comprehend the ſouthern part of the peninſula. His expedition appears to be rather predatory, than otherwiſe; *agreeable to the genius of his maſter, Alla.* The quantity of treaſure

* It is to be regretted that Col. Dow, did not give a literal tranſlation of Feriſhta, as a text; and add his own matter, or explanations, in the form of notes. We ſhould then have been able to diſtinguiſh the one from the other.

amaſſed

amaſſed, exceeds all belief. It was ſaid that ſilver was found too cumberſome for the ſoldiery; gold being in ſuch plenty. The hiſtorian obſerves on this occaſion, as well as on the taking of Deogur, that the Princes of the Deccan had been for a great number of ages, amaſſing this treaſure: ſo that their country had probably continued undiſturbed all that time.

In 1312 Cafoor ravaged the northern part of the Deccan again, and laid Tellingana and the Carnatic under a tribute: but the entire conqueſt of thoſe countries was not effected until about three centuries afterwards, under the latter Princes of the houſe of Timur. Alla died in 1326. At this period all Hindooſtan proper was comprehended in the Patan empire (ſo called from the dynaſty in poſſeſſion of the throne): and the interior policy is ſaid to be ſo well regulated, that ſtrangers might travel throughout the empire, in perfect ſecurity.

Rebellions breaking out in Tellingana, in 1322, and 1326, it was again ſubjected: and the whole Carnatic ravaged from ſea to ſea. But under a ſucceeding Emperor, Mahomed III. the Princes of the Deccan aſſumed courage, and headed by Belaldeo, King of the Carnatic, they drove the Mahomedans entirely out of thoſe countries; nothing remaining to them, ſave the fortreſs of Dowlatabad (or Deogur). About the ſame time (1344) the city of Bijinagur, corruptly called Biſnagar, was founded by the ſame Belaldeo. Mahomed, who appears to have been a weak Prince, loſt much territory, alſo, by rebellions in Bengal, Guzerat, and the Panjab: mean while, he was occupied in attempting the conqueſt of China, but was repulſed on the frontier. It is probable, from circumſtances, that he went by way of Aſſam. This Emperor alſo planned the abſurd ſcheme of transferring the ſeat of government, from Delhi to Dowlatabad: and attempted it twice, but without ſucceſs.

Feroſe III. who ſucceeded in 1351, appeared more deſirous of improving the remains of the empire, after the defection of Bengal

and the Deccan, &c. than of extending it, by arms. Canals, and public works, for the improvement of agriculture, and of the inland navigation, were his favourite objects, during a reign of 37 years. (See the Memoir, page 72.) The Moguls made another irruption in 1357, and the time now approached, when a more ſerious one was to take place under Timur, or Tamerlane. After the death of Feroſe, in 1388, rebellion and civil war, during a courſe of ſeveral years, prepared the empire for foreign ſubjection: and a minority, in the perſon of Mahmood III. who ſucceeded in 1393, brought matters to a criſis. During the confuſions attendant on the ſtate of a minority, in an empire which could with difficulty be held together, by a veteran deſpot, the hiſtorian remarks an unuſual circumſtance: two Emperors in arms againſt each other, reſiding within the ſame capital. In this ſtate of things, Timur, who had already extended his empire over all the weſtern Aſia and Tartary, turned his arms towards Hindooſtan in 1398. In the preceding year, he had ſent his grandſon Peer Mahomed, to reduce the Panjab, and Moultan; and in October, croſſed the Indus himſelf; and joining his grandſon near Moultan, his army proceeded in different diviſions to Delhi, which ſubmitted, without what may be properly termed, a battle. This inhuman monſter, who had credit enough with a poet of the preſent century, to be brought on the ſtage, as a hero, poſſeſſing great and amiable qualities, obtained in Hindooſtan, the title of "the deſtroying Prince:" and was truely worthy of it, from the numerous maſſacres and exterminations executed under his immediate direction. Timur ſtaid in Delhi only 15 days: and then appears to have been on his return to the ſeat of his empire, when, hearing of a fortreſs in the Dooab, that had reſiſted the arms of a former Mogul invader (Turmecherin Khan) he marched towards it and took it. From thence he proceeded to the place where the Ganges iſſues out of the mountains, and where the Hindoos reſort at certain ſeaſons, in vaſt numbers, to pay their adorations to, and to purify themſelves in that

ſacred

ſacred ſtream. His object was the extermination of theſe inoffenſive people; and he partly ſucceeded. From this place, turning to the north-weſt, along the foot of Mount Sewalick, he continued his maſſacres, though not without oppoſition, until he arrived on the frontiers of Caſhmere. He ſpent little more than five months between the time of his croſſing and recroſſing the Indus: and appears to have paid more attention to ſeaſons than Alexander did: as Timur choſe the fair ſeaſon for his expedition, whereas Alexander was in the field in the Panjab, during a whole rainy ſeaſon (ſee Memoir page 101). Timur, however, may be ſaid rather to over-run, than to ſubject, or conquer: for he did not diſturb the order of ſucceſſion in Hindooſtan, but left Mahmood on the throne: reſerving to himſelf the poſſeſſion of the Panjab country only; and this, his ſucceſſors did not retain long. His views were at this time, directed towards the Turkiſh empire; and this made him neglect India; which did not promiſe ſo plentiful an harveſt of glory, as the other. During his life, which ended in 1405, he was prayed for in the moſques of Hindooſtan, and the coin was ſtruck in his name: but this might be more the effect of policy in the uſurpers of Mahmood's throne, than the act of Timur. It does not appear from Feriſhta, any more than from Sherefeddin, that this Prince carried much treaſure, out of Hindooſtan, with him. But Nadir Shah's acquiſition of the precious metals, at a later period, was great, beyond all ideas of accumulation, in Europe: and is only to be accounted for, by the influx of thoſe metals from America, during that interval.

For the geography of Timur's marches, the reader is referred to the third ſection of the Memoir; and to the map.

If Hindooſtan was in confuſion before this invaſion, it may be expected that on Timur's departure, matters became much worſe. The death of Mahmood happened in 1413; and with him ended the Patan dynaſty, founded by Cuttub in 1205. The throne was then filled by Chizer, a Seid (that is, one of the race of the prophet

phet Mahomed) whoſe poſterity continued in it, until 1450: when Belloli, an Afghan of the tribe of Lodi, took poſſeſſion of it, on the abdication of Alla II. under whom all Hindooſtan fell into ſeparate governments; and a potentate, ſtyled King of the EAST, whoſe reſidence was at Jionpour, in the province of Allahabad, became the moſt formidable, among them: while the King of Delhi, had but the ſhadow of authority remaining to him. The ſon of Belloli recovered a conſiderable part of the empire; and in 1501, made Agra the royal reſidence. It was during this reign, that the Portugueſe firſt accompliſhed the paſſage to India, by the Cape of Good Hope: but as their connexions were entirely with the maritime parts of the Deccan; and a part of it that had ever been independant of Delhi, no notice of this event, is taken by Feriſhta. The empire fell again into utter confuſion, under Ibrahim II. in 1516; and this paved the way for the conqueſt of Hindooſtan, by Sultan Baber, a deſcendant of Tamerlane and of Gengiz Kan; who reigned over a kingdom compoſed generally of the provinces ſituated between the Indus and Samarcand. Being diſpoſſeſſed of the northern parts of his dominions, by the Uſbecs, he determined to try his fortune in Hindooſtan, whoſe diſtracted ſituation flattered his hopes of conqueſt. His reſidence at this time was at Cabul, from whence he undertook his firſt expedition acroſs the Indus, in 1518. After this, he made four others: and in the fifth (A. D. 1525) he defeated the Emperor of Delhi, and thus put an end to the dynaſty of Lodi. It is ſaid that Baber croſſed the Indus, this laſt time, with only 10,000 choſen horſe; the enemy's Generals, by their revolts, furniſhing him with the reſt of his army. In this, we have a freſh inſtance of the ſmall dependance that the Hindooſtan Emperors could have, on their Viceroys and Generals. Baber reigned only five years in Hindooſtan; during which, his chief employment was the reduction of the eaſtern provinces. Nor did he relinquiſh his Perſian provinces, by croſſing the Indus. His ſon, Humaioon, ſucceeded him in 1530; but the

the ſhort reign of Baber, did not allow time enough to compoſe the diſtractions that had ſo long prevailed; or to exterminate the ſeeds of rebellion: for the intrigues of his brothers, and the open rebellion of Sheer Kan, drove Humaioon, although a Prince of conſiderable abilities, and great virtues, from his empire, in 1541. His flight towards the Indus, and his ſojourn among the Rajpoot Princes of Agimere, furniſhes a ſtriking picture of royal diſtreſs. During his ſtay there, his ſon Acbar was born, whom we may reckon among the greateſt of the Sovereigns of Hindooſtan. The provinces on the weſt of the Indus were held by a brother of Humaioon. The uſurper Sheer, did not long ſurvive his new dignity; being killed at the ſiege of Cheitore in 1545: and was buried at Saſeram in Bahar, his original eſtate; in a magnificent mauſoleum, which he had ordered to be conſtructed, during his life time: and of which, a drawing has lately been exhibited in this country, by Mr. Hodges. Sheer Kan was of Afghan origin; and held the ſoubahſhip of Bahar, when he rebelled: and at his death, his empire extended from the Indus to Bengal. He left his throne to his ſon Selim, but ſo very unſettled was the ſtate of Hindooſtan, that no leſs than five Sovereigns appeared on its throne, in the courſe of 9 years. In effect, there could not exiſt in the minds of the people, any idea of regular government, or regular ſucceſſion: for there had ſcarcely ever been 12 years together, during the laſt, or the preſent century, without furniſhing ſome example of ſucceſsful rebellion. This induced a ſtrong party in Hindooſtan, to invite Humaioon back; and accordingly, in 1554, he returned, and met with but little reſiſtance: but died in conſequence of an accident, the following year. He was celebrated for the mildneſs and benevolence of his nature: and his return, notwithſtanding the ſhortneſs of his reign, was a public bleſſing; as it was the means of ſeating his ſon Acbar quietly on the throne. When he was driven from his empire, by Sheer, he reſided with Shah Tamaſp, of Perſia,

who

who aided him in the recovery of it: and in the early part of his exile, he recovered poſſeſſion of the provinces beyond the Indus.

Acbar was about 14, when his father died, in 1555. The reign of this Prince has been celebrated by the pen of the famous Abul Fazil, in a book called the Acbar-namma, or hiſtory of Acbar. The buſineſs of this ſketch, being rather to give a ſort of chronological table of events, than to aim at a circumſtantial hiſtory, I ſhall not attempt to particularize the great events of this long and buſy reign of 51 years: but refer the reader to the hiſtory of Hindooſtan, by Col. Dow: in which, not only a full account of Acbar, but alſo of his deſcendants, down to Aurungzebe, will be found. As in the perſon of Baber, the line of Tamerlane firſt mounted the throne of Hindooſtan: ſo in that of Acbar, the grandſon of Baber, it may be ſaid to be eſtabliſhed. The conqueſt of their anceſtor, about a century and a half before, had no ſhare in effecting the preſent ſettlement. Baber, was in reality the founder of the Mogul dynaſty; and from this event, Hindooſtan came to be called the Mogul, empire*.

The firſt years of Acbar's reign were employed in the reduction of the revolted provinces, from Agimere to Bengal; in which the great Byram, who had a ſhare in recovering the empire for Humaioon, was a principal actor. Theſe conqueſts were ſecured in a manner very different from thoſe, atchieved by former Emperors: that is, by a proper choice of Governors; by wiſe regulations; by an unlimited toleration in religious matters; and by a proper attention to the propenſities of the people: to all which, a long and vigorous reign, was peculiarly favourable. The Hindoos ſtill formed the bulk of the people; even in thoſe provinces, that, from their vicinity to the country of the conquerors, had been the moſt

* Properly ſpeaking, the MOGUL EMPIRE was that, over which Tamerlane and his immediate ſucceſſors reigned; and in which, India was not inclnded. Cuſtom, however, has transferred the name to the empire held by the deſcendants of Tamerlane, in Hindooſtan and the Deccan.

frequently over-run : and experience had taught the Mahomedan conquerors, that the paſſive religion and temper of the Hindoos, would, if left to themſelves, never diſturb the eſtabliſhed government. But the DECCAN was a ſtumbling block to the Mogul Emperors. In 1585, Acbar reſolved on the attack of it, and ſoon after carried the war into Berar, while another army was reducing Caſhmere, in an oppoſite corner of the empire. The Deccan appears at this time, to have been divided into the kingdoms or ſtates of Candeiſh, Amednagur (or Dowlatabad) Golconda (or Bagnagur) and Viſiapour. Berâr and the Carnatic, each of which included ſeveral diſtinct governments, are not ſpecified by the hiſtorian, as members of the Deccan: by which it would appear that they do not, in ſtrictneſs, appertain to it. In the popular language of the times, there were reckoned to be four principalities in the Deccan: that is to ſay, the four firſt mentioned, above. Moſt, if not all of theſe, were at this time governed by Mahomedan Princes; although we are not in poſſeſſion of any hiſtory of the conqueſts or revolutions, that transferred them from the Hindoos to the Mahomedans. At the time of Acbar's death, in 1605, no farther progreſs was made in the reduction of the Deccan, and the adjoining countries, than the taking poſſeſſion of the weſtern part of Berar, Candeiſh, Tellingana (a diviſion of Golconda) and the northern part of Amednagur; the capital of which, bearing the ſame name, was taken in 1601, after a long and bloody ſiege, and an unſucceſsful attempt to relieve it, by the confederated Princes of the Deccan.

Acbar was the glory of the houſe of Timur. Hindooſtan proper, had never, at any period ſince the firſt Mahomedan conqueſt, experienced ſo much tranquillity, as during the latter part of his reign: but this tranquillity would hardly be deemed ſuch, in any other quarter of the world; and muſt therefore be underſtood to mean a ſtate, ſhort of actual rebellion, or at leaſt, commotion. Prince Danial, his eldeſt ſon, died juſt before him; and Selim,

the next, in right of primogeniture, ſucceeded under the title of Jehanguire.

Jehanguire reigned about 22 years. Under him, the conqueſt of the Deccan was not loſt ſight of, though but faintly purſued. War was made on the Rajpoots, and the Rana, or chief Prince, brought to terms. The rebellions of the Emperor's ſon, Shah Jehan, embittered the latter part of his reign; and the influence of his miſtreſs Noor Jehan, rendered his councils weak, and conſtrained his government. However, the provinces having been held together for near 70 years, the empire had acquired a degree of conſolidation; and was not ſo liable to be ſhaken, as it would have been at ſome former periods, under the operation of ſimilar events. It was in this reign, and in the year 1615, that Sir Thomas Roe was ſent as the firſt Engliſh Ambaſſador to the Emperor of Hindooſtan. The Portugueſe, had by this time, acquired conſiderable ſettlements in Bengal and Guzerat; but only thoſe in Guzerat, where they alſo poſſeſſed ſome extent of territory, attracted the notice of the court: and it is curious to obſerve what the author of the Ayin Acbaree ſays of them, about the year 1560. Speaking of the lands of Guzerat, he ſays, "By the *neglect* of the King's Governors, ſeveral of theſe diſtricts are in the hands of Europeans." Feriſhta, alſo, ſpeaking of the ſite of an ancient Hindoo temple, near Diu, ſays that it was ſituated in the diſtricts, that were ſubject to the "Idolaters of Europe."

Shah Jehan ſucceeded his father in 1627. The conqueſt of the Deccan was purſued with more vigour in this reign: and the plunders and devaſtations perpetrated there, occaſioned moſt, or all of its Princes, to make ſubmiſſion, and acknowledge the Emperor, lord paramount. Golconda was in part, actually taken poſſeſſion of: but Viſiapour and the Carnatic, together with the regions of the Gauts, remained in the hands of their ancient poſſeſſors.

Candahar, a fortreſs ſituated on the common boundary of Perſia, and of the Mogul provinces beyond the Indus, was, at this time, a ſub-

a ſubject of contention, between the two Monarchs of Perſia and Hindooſtan. The firſt ſerious quarrel between the Europeans (Portugueſe) and Moguls, happened during this reign, 1633: when the Portugueſe were expelled from Hoogly, in the Ganges. In 1658, the civil wars commenced between the Emperor and his ſons; as well as between the ſons themſelves: which ended in the elevation of Aurungzebe, the youngeſt; after he had depoſed his father, and murdered or expelled his three brothers. The account of theſe tranſactions may be ſeen at large, in Bernier and Dow: and is a very curious piece of hiſtory. In 1660, Aurengzebe (who took the name or title of Allumgire and was the firſt of that name) was in peaceable poſſeſſion of the throne: and from that period, until the year 1678, there prevailed, throughout Hindooſtan in general, the moſt profound peace that had ever, perhaps, been known: but the remainder of the Deccan, was ſtill a *deſideratum*; and Aurungzebe diſdained to have any other boundary, on the ſouth, than the ocean. Accordingly, the conqueſt of the remote part of the Deccan employed a very conſiderable part of his leiſure during the latter part of his reign: when the whole of that region, together with the peninſula, a few mountainous and inacceſſible tracts only excepted, were either entirely ſubjected, or rendered tributary to the throne of Delhi. What might appear to Aurungzebe to render this ſtep of ſubduing the Deccan, neceſſary, was, the determined ſpirit and growing power of Sevagee, the founder of the Mahratta ſtate; who, by his conqueſts in Viſiapour, appeared almoſt in the character of a rival to Aurungzebe.

A rebellion of the Patans beyond the Indus, in 1678, called for the preſence of Aurungzebe, there: which was no ſooner quelled, than his perſecution of the Hindoos ſtirred up the Rajpoot tribes in Agimere. He undertook this war alſo, in perſon: but was hemmed in with his whole army, between the mountains, and the Empreſs herſelf, was taken priſoner: ſhe was afterwards, however, permitted to eſcape, as well as the Emperor. This did not diſ-

courage him from carrying the war into the Rajpoot country again, in 1681: when he took and deſtroyed Cheitore, the famous capital of the Rana; as well as all the objects of Hindoo worſhip found there. The ſpirits of theſe gallant people, were, however, ſtill unſubdued: and Aurungzebe was neceſſitated to grant them a peace *.

Sevagee died in 1680, and left his riſing ſtate of Mahrattas, to his ſon Sambajee; who was afterwards betrayed into the hands of Aurungzebe, and barbarouſly put to death. Still, however, the mountainous parts of Baglana were unſubdued; and although the kingdom of Viſiapour was reduced in 1686, and Golconda, in the following year; yet he found great difficulty in proſecuting his conqueſts on the weſt: as appears by his camp being fixed on the Kiſtna river, about 200 miles to the north-eaſtward of Goa, in 1695: I ſay, appears: for we have at preſent, no regular hiſtory of any later period, than the 10th year of Aurungzebe: that is, to the year 1670; when Mr. Dow's hiſtory finiſhes: all the events that are ſubſequent to this date, are from other authorities.

It is ſaid that Aurungzebe was employed in the Deccan from the year 1678, to the time of his death, and was actually in the field, during the greateſt part of the laſt 15 years of his life. This dereliction of his original empire and capital for nearly 30 years, occaſioned various diſorders in them: and laid the foundation of many more: among others, the ſecond rebellion of the Rajpoots in Agimere; that of the Patans towards the Indus; and of the Jats, or Jates, in the province of Agra. This was the firſt time that the Jats appeared, otherwiſe than as banditti: ſince which, they grew

* The reader may find in the 49th note to Mr. Orme's Hiſtorical Fragments of the Mogul empire, a letter written by Jeſwont Sing, Rajah of Joudypour, to Aurungzebe, expoſtulating with him on the unjuſt meaſures he was purſuing, with reſpect to the Hindoos. This letter breathes the moſt perfect ſpirit of philanthropy, and of toleration in matters of religion: together with the moſt determined reſolution to oppoſe the meditated attack on the civil and religious rights of the Hindoos. The elegant tranſlation of this letter was made by Mr. Boughton Rouſe.

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up to be a confiderable ftate: and at one time, were of fome confideration, in the politics of upper Hindooftan.

Aurungzebe died in 1707, in the 90th year of his age, at Amednagur, in the Deccan; which he had fixed on for his refidence, when in winter quarters. Under his reign, the empire attained its full meafure of extent. His authority reached from the 10th to the 35th degree of latitude; and nearly as much in longitude: and his revenue exceeds 32 millions of pounds fterling, in a country where the products of the earth are about four times as cheap as in England. But fo weighty a fceptre could only be wielded by a hand like Aurungzebe's: and we accordingly find, that in a courfe of 50 years after his death, a fucceffion of weak Princes and wicked Minifters, reduced this aftonifhing empire to nothing.

Aurungzebe obvioufly forefaw the contefts that would arife between his fons, for the empire: and it has therefore been afferted, that he made a partition of it, among them. This account, however, is not warranted by the memoirs of a nobleman of Aurungzebe's Court, lately publifhed, in this country *; nor by the beft living authorities that I have been able to confult. Two letters, written by Aurungzebe to two of his fons, a few days before his death, indicate no intention of dividing the empire; but exprefs in doubtful terms, his apprehenfions of a civil war †. He left behind him, four fons: Mauzum, afterwards Emperor, under the title of

* Memoirs of Eradut Khan, tranflated from the Perfian by Capt. J. Scott, 1786. This valuable fragment of Mogul hiftory, contains an account of the revolutions that happened in the Mogul empire, from the death of Aurungzebe, in 1707, to the acceffion of Ferokfere, in 1712. It contains much curious matter; and fully developes the political character of a Mogul courtier.

† Thefe letters are preferved in one of the notes to the above work (page 8) and furnifh this ftriking leffon to frail mortality; that, however men may forget themfelves, during the tide of profperity, a day of RECOLLECTION will inevitably come, fooner or later. Here we are prefented with the dying confeffion of an aged monarch, who made his way to the throne, by the murder of his brethren, and the imprifonment of his father: and who, after being in peaceable poffeffion of it, perfecuted the moft inoffenfive part of his fubjects, either through bigotry, or hypocrify. Here we behold him in the act of refigning THAT, to obtain poffeffion of which, he incurred his guilt: and prefented to us, a mere finful man, trembling on the verge of eternity; equally deploring the paft, and dreading the future. How awful muft his fituation appear to him, when he fays, "*Wherever I look, I fee nothing but the* DIVINITY."

Bahader Shah; Azem, and Kaum Bukſh, who ſeverally conteſted the empire with their elder brother; and Acbar, who 30 years before had been engaged in rebellion and fled to Perſia. The death of their father, was the ſignal of hoſtility between Mauzum and Azem; the former approached from Cabul, and the latter from the Deccan, and diſputed the poſſeſſion of the whole empire (for Azem had propoſed a partition of it) with armies of about 300,000 men each. Near Agra, it was decided by a battle, and the death of Azem: and Mauzum took the title of Bahader Shah. His title, before his acceſſion, was Shah Aulum; by which name he is conſtantly mentioned in the memoirs of Eradut Khan.

Bahader Shah reigned about five years, and was a Prince of conſiderable ability, and great attention to buſineſs: but the convulſions with which his elevation had been attended (notwithſtanding his pretenſions, as eldeſt ſon of the late Emperor) added to the various diſorders that had taken root, during Aurungzebe's long abſence in the Deccan, had reduced the government to ſuch a ſtate of weakneſs, as required not only the exertion of the beſt talents, but alſo much time, to reſtore. The rebellion of his brother Kaum Bukſh, ſoon after his acceſſion, called him into the Deccan; and this being quelled by the death of Kaum Bukſh, and the total diſperſion of his followers, he wiſely quitted this ſcene of his father's miſtaken ambition; although the Deccan was far from being in a ſettled ſtate. He had in contemplation to reduce the Rajpoot Princes of Agimere, who had formed a very ſtrong confederacy; to which the long abſence of Aurungzebe had been too favourable: and they appeared to act with much confidence and ſecurity. However, an evil of a more preſſing nature, drew the Emperor's attention to another quarter. The Seiks, a new ſect of religioniſts, appeared in arms in the Lahore province; and ravaged the whole country from thence to the banks of the Jumna river. The Seiks had ſilently eſtabliſhed themſelves, along the foot of the eaſtern mountains, during the reign of Shah Jehan. They differ from

moſt

moſt religioniſts, in that, like the Hindoos, they are perfectly tolerant in matters of faith; and require only a conformity in certain ſigns and ceremonies: but unlike the Hindoos, they admit proſelytes; although thoſe from among the Mahomedans, are the leaſt eſteemed. They are now become one of the moſt potent ſtates in Hindooſtan. Theſe, the Emperor marched againſt in perſon, and after much trouble and delay, reduced them; but their Chief eſcaped. The Emperor then took up his reſidence at Lahore, and ſeems to have continued there a very long time: probably, to check the remnant of the party of the Seiks; and to ſettle the affairs of the province, in general. Here he died, after a ſhort illneſs, in 1712: and, it would appear, that he never had an opportunity of viſiting Agra, or Delhi, during his reign.

He alſo, left four ſons: among whom, a war for the ſucceſſion, commenced on the ſpot. The ſecond ſon, Azem Ooſhawn, took poſſeſſion of the treaſures; but was oppoſed by his three brothers, who agreed to divide the empire among them. A battle, in which Azem was killed, decided matters in their favour; chiefly by the addreſs and bravery of the youngeſt, Jehaun Shah; who ſeemed reſolved to abide by the agreement, to divide the empire; and as a proof of his intention, directed the treaſures to be divided. But Zoolfecar Khan, an Omrah in high truſt, intrigued to prevent it; intending to raiſe to the throne, Jehaunder Shah, who was the beſt fitted for his purpoſes. A ſecond battle was fatal to Jehaun Shah; and left his two remaining brothers to diſpute the empire, by a third battle; which left Jehaunder, who was originally the eldeſt, in poſſeſſion. He did not long enjoy his dignity: for at the end of nine months, he was dethroned by Ferekſere, (or Furrockſere) ſon of the deceaſed Azem Ooſhawn; and, of courſe, great grandſon of Aurungzebe. The weakneſs and meanneſs of Jehaunder, is almoſt without parallel, in the annals of Kings *: and gave occaſion to the

* His hiſtory is given in the abovementioned Memoirs.

Syeds

Syeds (or Seids) Houſſein Ali Khan, and Abdoolla Khan, two brothers, and Omrahs of great power, to ſet up Ferokſere Having been poſſeſſed of governments in the eaſtern provinces, their influence enabled them to collect an army, with which they defeated that of Jehaunder, near Agra, in the ſame year, 1712.

The Seiks appeared again in arms, during the following year: and in 1716, they were grown ſo formidable, that it appeared neceſſary to march the grand army againſt them, with the Emperor at its head; but we are ignorant of the particulars of the campaign.

It was in this reign that the Engliſh Eaſt-India-Company, obtained the famous FIRMAN, or grant, by which their goods of export and import, were exempted from duties, or cuſtoms; and this was regarded as the Company's COMMERCIAL CHARTER in INDIA, while they ſtood in need of protection, from the Princes of the country.

In the year 1717, Ferokſere was depoſed and blinded by the Seids: who raiſed to the throne Ruffieh-ul-Dirjat, a ſon of Bahader Shah. Both this Emperor and his brother, Ruffieh-al-Dowlat, were, in the courſe of a year, raiſed to the throne; and afterwards depoſed and put to death by the Seids; who had now the diſpoſal of the empire and all its concerns. Thus, in 11 years from the death of Aurungzebe, five Princes of his line, who had mounted the throne, and ſix others who had been competitors for it, had been diſpoſed of: and the degraded ſtate of the regal authority, during this period, had introduced an incurable anarchy, and a diſpoſition in all the Governors of provinces, to ſhake off their dependency on the head of the empire. From this time, affairs declined very rapidly: and the empire, which had acquired ſome degree of conſiſtency under the houſe of Timur, was now about to be diſmembered, in a degree beyond what it had experienced, even before the æra of the Mahomedan conqueſts.

Mahomed Shah, grandſon of Bahader Shah, was placed on the throne by the Seids, in 1718. This Prince, warned by the fate of his

his predeceſſors, and having very early in his reign acquired power ſufficient for the purpoſe, got rid of the Seids: but not without a rebellion and a battle.

Nizam-al-Muluck, Viceroy of the Deccan, had for ſome time been riſing into power; and the times being favourable, he meditated independency. He had received ſome affronts from the Seids, which furniſhed him with an excuſe for withdrawing to his government: from whence, in 1722, he was invited to Court, and offered the poſt of Vizier. This offer, however, he declined, as not ſuiting his projects: which had for their object, ſovereignty, inſtead of miniſtry; in the Deccan, at leaſt. The Mahrattas too, whoſe power had progreſſively increaſed, and who even held their ground againſt ſo martial and perſevering a Prince as Aurungzebe, were, as might be expected under a ſucceſſion of weak ones, grown truely formidable to the reſt of the empire: and their vicinity to the Nizam, afforded him a complete pretence for increaſing his army. When the Princes of the houſe of Timur were ſo eagerly purſuing the conqueſt of the Deccan, it ſeems to have eſcaped their penetration, that this region, which poſſeſſed ample reſources within itſelf, and innumerable local advantages in point of ſecurity from an enemy without, was alſo ſituated at ſuch a diſtance from the capital, as to hold out to its Viceroy, the temptation of independence, whenever a favourable opportunity might offer. Perhaps, if the Deccan had been originally left to itſelf, the poſterity of Timur might ſtill have ſwayed the ſceptre of Hindooſtan.

While the Nizam continued ſo formidable in the ſouth, the Mahrattas directed their attacks againſt the middle and northern provinces. Malwa and the open parts of Agimere were over-run by them: and their detachments inſulted even the capital of the empire. The weak Mahomed, had in the early part of his reign, endeavoured to ſatisfy their demands, by paying them a tribute amounting to one fourth of the net revenue of the invaded provinces: but this, as might have been expected, only increaſed

their insolence, and ended in their seizing on the provinces themselves.

In 1738, the Nizam, confident of his interest with a powerful faction at Court, came thither, attended by a large body of armed followers. Dowran, the commander in chief of the army of the empire, was at the head of the Court party; which the Nizam finding too strong, to be easily dispossessed of their places, he invited Nadir Shah, the usurper of the Persian throne, and who was then engaged in the siege of Candahar, to invade Hindoostan: hoping that he and his faction might get rid of Dowran; or at any rate, that they might profit by the confusion it would occasion. Many thought that the Nizam's views extended to the empire itself. Accordingly, in the following year, Nadir Shah entered Hindoostan, and advanced to the plains of Carnawl, where Dowran had assembled the army, but was soon after killed in a skirmish. So uncertain was the state of things, even at this time, that Nadir Shah offered to evacuate the empire for fifty lacks of rupees (half a million). But the intrigues of the Nizam and his party, occasioned the weak Emperor to throw himself on the clemency of the invader; who entered Delhi, and demanded 30 millions sterling, by way of ransom. Tumults, massacres, and famine, were the result: 100,000 of the inhabitants were massacred, and 62 millions of plunder, were said to be collected. Nadir married his son to a grand daughter of Aurungzebe, restored Mahomed Shah to his throne, and returned to Persia, after obtaining the cession of all the countries subject to Hindoostan, lying on the west of the Indus.

His departure left the Nizam in possession of the whole remaining power of the empire: and which he sacrificed to his own views in the Deccan, where he established an independant kingdom for himself. The Mahratta invasions of the Carnatic in 1740 and 1741, and particularly the defeat and death of Doast Ally (Nabob of Arcot) by their arms, called the Nizam home; after delegating his power at Court to his eldest son Gazi o'dien.

The

The Nizam, on his arrival, ſettled the Carnatic for the preſent, by placing Anwar o'dien, father of the preſent Mahomed Ally, in the government, or Nabobſhip of Arcot; which was then underſtood to comprehend nearly the preſent Carnatic.

Bengal became independant of Delhi a little before this time (1738) under Aliverdy Cawn; and not long after, a vaſt army of Mahrattas, both from Poonah and Berar (for they were now divided into two ſtates) invaded it, under the ſanction of the Emperor's name, who being at a loſs to ſatisfy their repeated demands, ſent them to collect for themſelves, the arrears of revenue, ſince the defection of Aliverdy. About the ſame time the Rohillas, a tribe from the mountains that lie between India and Perſia, erected an independant ſtate on the eaſt of the Ganges, and within 80 miles of Delhi. Very ſtrong ſymptoms of the univerſal diſſolution of the empire, appeared, at this time.

Nadir Shah died in 1747: and in the confuſion that followed, Abdalla, one of his Generals, ſeized on the eaſtern part of Perſia, and on the bordering provinces of India, that were ceded by Mahomed Shah to Nadir; and theſe he formed into a kingdom, known at preſent by that of Candahar; or more familiarly by that of the *Abdalli*. It compriſes nearly the ancient empire of Ghizni.

Mahomed Shah died the ſame year, having reigned 29 years: a long period, conſidering the fate of his immediate predeceſſors, and the ſtate of anarchy that prevailed ſo univerſally in Hindooſtan.

Ahmed Shah, ſon of Mahomed, ſucceeded his father. In his reign, which laſted about 6 years, the entire diviſion of the remainder of the empire took place: nothing remaining to the houſe of Timur, ſave a ſmall territory round Delhi, together with the city itſelf (now no longer a capital) expoſed to repeated depredations, maſſacres, and famines, by the conteſts of invaders. The laſt army that might be reckoned *imperial*, was defeated by the Rohillas, in 1749; by which their independency was firmly eſtabliſhed in the

eastern part of the province of Delhi. The Jates, or Jats, a Hindoo tribe under Soorage-Mull, established themselves, and founded a state in the province of Agra. The Deccan and Bengal we have already seen, usurped by their Viceroys, the Nizam and Aliverdy: Oude was seized on by Seifdar Jung (father to the late Sujah Dowlah, and grandfather to the reigning Nabob of Oude, Azuph Dowlah): Allahabad by Mahomed Kooli: Malwa was divided between the Poonah Mahrattas, and several native Princes, and Zemindars: Agimere reverted of course, to its ancient lords, the Rajpoot Princes: and the Mahrattas, who had of late been making large strides towards universal plunder, if not to universal empire; possessed, in addition to their share of Malwa, the greatest part of Guzerat, Berar, and Orissa; besides their ancient domains in the Deccan: and were alternately courted and employed by different parties, and were become the Swiss of India; with this deviation from the custom of the European Swiss, that they usually paid themselves, instead of being paid by their employers. Abdalla, as has just been said, having established his new kingdom very early in this reign, entered Lahore and Moultan (or the Panjab) with a view to the conquest of them. The whole country of Hindoostan proper, was in commotion from one extreme to the other: each party fearing the machinations or attacks of the other; so that all regular government was at an end, and villiany was practised in every form. Perhaps, in the annals of the world, it has seldom happened that the bonds of government were so suddenly dissolved, over a portion of country, containing at least 60 millions of inhabitants.

The Nizam died, at a very advanced age*, in 1748, and was succeeded by his son Nazirjung, in prejudice to the rights of his eldest son, Gazi, Vizier to the nominal Emperor. The contests that followed soon after, between Nazirjung, and his nephew

* He was 104 years old. He left 5 sons; Gazi o'dien, Nasirjung, Salabidjung, Nizamally (the present soubah of the Deccan, and the only survivor) and Bazalet Jung.

Muzzuffer Jung, for the throne of the Deccan; and between the families of Anwar o'dien and Chunda Saheb, for the Nabobship of Arcot, one of its provinces; occasioned the French and English to engage as auxiliaries in the wars that happened in consequence of them. In the first, the French alone interfered: in the latter, both nations; the English espousing the cause of the family of Anwar o'dien. These wars lasted till the year 1754; and ended, after much bloodshed by battle and assassination, in fixing Mahomed Ally, second son of Anwar o'dien, in the government of Arcot; and Salabidjung, son of the late Nizam-al-Muluck; in the soubahship of the Deccan; the original disputants being either assassinated or killed in battle. By this result, the English gained the point of establishing their security and their influence in the Carnatic: and the French, in addition to the solid advantage of getting possession of the northern circars *, valued at half a million sterling, of annual revenue, gained the splendid but uncertain privilege of influencing the councils of the Nizam, by attending his person with their army, commanded by the celebrated M. Bussy.

The Mogul empire was now become merely nominal: and the Emperors must in future be regarded as of no political consequence, otherwise than as their names and persons were made use of, by different parties, to forward their own views. That the name and person of the Emperor were of use, as retaining a considerable degree of veneration among the bulk of the people in Hindoostan and the Deccan, is evident, from the application made at different times, for grants of territory, forcibly acquired by the grantee, but which required the sanction of the lord paramount, in order to reconcile the transaction to the popular, or perhaps, vulgar opinion. Thus every usurper has endeavoured to sanctify his usurpation, by either a real or pretended grant from the Emperor: and others, by

* The geographical position of the circars, and the origin of the application of the term *northern*, to them, will be found in the latter part of this Introduction.

obtain-

obtaining poſſeſſion of his perſon, have endeavoured to make their acts paſs for his. Another remarkable inſtance of the effect of popular opinion, is, that the coin throughout the whole tract, known by the name of the Mogul empire, is to this day, ſtruck in the name of the nominal Emperor.

In 1753, the Emperor Ahmed was depoſed by Gazi *, after having reigned about 6 years. In the preceding year, the Mahrattas had been called in, to aſſiſt in reducing the Jats, who were in poſſeſſion of Agra, and become troubleſome neighbours to the Emperor: and in the preſent year, the Berar Mahrattas eſtabliſhed themſelves in Oriſſa, by ceſſion from Aliverdy, Nabob of Bengal: who was alſo compelled, for a ſhort time, to pay them a tribute for Bengal and Bahar, amounting to one fourth of the clear revenue. This, together with the Mogul's former permiſſion to collect the arrears of revenue due to him, is the foundation of their claims on Bengal and Bahar; and which they have never relinquiſhed, although the times may have been unfavourable to their aſſerting them.

Allumguire II. grandſon of Bahader Shah, was placed on the nominal throne by Gazi, with the concurrence of Nidjib Dowlah, a Rohilla Chief, and commander of the army. Abdalla of Candahar, was at this time in poſſeſſion of Lahore, and threatened Delhi. In 1756, the Emperor, to get rid of Gazi, invited Abdalla to Delhi; who accordingly came, and laid that unfortunate city under heavy contributions; not even ſparing the ſepulchres of the dead: but being baffled in his attempt on Agra (held by the Jats) he proceeded no farther eaſtward, but returned towards Perſia, in 1758. The Emperor and his family were now reduced to the loweſt poſſible ſtate of royalty: alternately ſoliciting the aſſiſtance

* It is neceſſary to obſerve, that the Gazi o'dien in queſtion, is not the perſon whom we have ſeen before, in the capacity of Vizier to Mahomed Shah; but his ſon. But this is the Gazi, who is ſo famous, or rather infamous, for aſſaſſinations and crimes of almoſt every other kind. The elder Gazi periſhed in an attempt to recover the poſſeſſion of the Deccan from his younger brother Salabidjung, in 1752.

of

of Abdalla, and of the Mahrattas; and as much in dread of their allies, as of their enemies.

In 1760, Allumgire was depofed and murdered by Gazi. His fon, the prefent Emperor, who took the title of Shah Aulum, was then engaged in a fruitlefs attempt to reduce the Bengal provinces. He had fucceffively thrown himfelf, on the Mahrattas, Nidjib Dowlah, and Sujah Dowlah, for protection and affiftance; but without fuccefs. Mahomed Kuli of Allahabad, however, received him: and it was by means of an army furnifhed by that Chief, and by Bulwantfing, Zemindar of Benares, that he was enabled to enter the Bengal provinces, where he was joined by fome refractory Zemindars of Bahar, and made up altogether a force of about 60,000 men: but notwithftanding his numbers, they were fo ill provided, that he ended his expedition (in 1761) by furrendering himfelf to the Britifh, who had taken the field as allies to the Nabob of Bengal: and who, having at that time no inducement to connect their fortunes with his, he applied with more fuccefs to Sujah Dowlah, who, in Mahomed Kuli's abfence, had feized on Allahabad.

Abdalla, had vifited Hindooftan no lefs than 6 times during the late reign; and appeared to have much more influence in the empire than Allumgire had. His fixth vifit, was in 1759 and 1760; when Delhi was again plundered and almoft depopulated, although during the time of Aurungzebe it was fuppofed to contain two millions of fouls.

The Mahrattas in the midft of thefe confufions and revolutions, daily gathered ftrength. We find them engaged in every fcene of politics and warfare from Guzerat to Bengal; and from Lahore to the Carnatic. Poffeffed of fuch extenfive domains and vaft armies, they thought of nothing lefs than driving out Abdalla, and reftoring the Hindoo government, throughout the empire. Thus the principal powers of Hindooftan were arranged in two parties; the Hindoos and Mahomedans: for the Jats joined the Mahrattas; and

and Sujah Dowlah, with the Rohillas, and other Mahomedan Chiefs of lefs note, joined Abdalla: and a battle enfued in the old fcene of warfare, the plains of Carnawl and Panniput. There were faid to be 150,000 Mahomedans, and no lefs than 200,000 Mahrattas, whofe caufe the Jats deferted, before the battle. This was the moft important ftruggle that had taken place, fince the contefts between Aurungzebe's fons, in 1707. Victory declared for Abdalla, after a battle more obftinate and bloody than any that the records of Hindooftan can probably fhew: the carnage of the day, and the number of Mahratta prifoners taken, were almoft incredible; and great deeds of valour were performed on both fides. This battle was decifive of the pretenfions of the Mahrattas, to univerfal empire in Hindooftan. They loft the flower of their army, together with their beft Generals: and from that period (1761) their power has been fenfibly on the decline.

Abdalla's influence at Delhi, was now unlimited; and he invited Shah Aulum thither (then engaged in Bahar, as abovefaid) promifing to feat him on the throne of his anceftors. He, however, did not venture to truft himfelf in the hands of Abdalla: who therefore, as his prefence was required in Lahore, where the Seiks were on the point of overpowering his garrifons, fet up Jewan Bucht, the fon of Shah Aulum *, for Emperor, under the tuition and protection of Nidjib Dowlah; from whom he exacted an annual tribute. Thus, in fact, Abdalla became Emperor of Delhi: and if his inclinations had led him to eftablifh himfelf in Hindooftan, it is probable that he might have began a new dynafty of Emperors, in his own perfon. He meant, probably, at fome future time, to purfue his defigns, whatever they were, either for himfelf or for the heir of the houfe of Timur, to which he had allied himfelf by a match with one of the Princeffes. His fon and

* This is the perfon who vifited Mr. Haftings at Lucknow, in 1784. He was about 13 years old at the time of Abdalla's laft vifit to Delhi.

fuccef-

ſucceſſor, the preſent Timur Shah, married another Princeſs of the ſame line.

After the departure of Abdalla, it appears that all the territory remaining to Nidjib Dowlah, for himſelf and the young Emperor, was the northern part of the province of Delhi. In the following year, 1762, both the Jats and Mahrattas preſſed hard on Nidjib Dowlah, but he either baffled them, or bought them off; and held his ground during his life time: and then tranſmitted his country, which is chiefly ſituated between the Ganges and Jumna, to his ſon Zabeta Cawn, the preſent poſſeſſor.

Shah Allum the legal Emperor (whoſe ſon we have juſt ſeen in the character of his father's repreſentative) was without territory, and without friends, ſave only a few Omrahs who were attached to his family; and were, like him, diſpoſſeſſed of their property and ſtation. The expulſion of the Nabob of Bengal, Coſſim Ally, by the Engliſh, in 1763, by drawing Sujah Dowlah into the quarrel, was the means, once more, of bringing the wandering Emperor into notice. But he had more to hope from the ſucceſs of the Britiſh arms, than thoſe of his patron, Sujah Dowlah: and the uninterrupted ſucceſs that attended them in 1763, 64, and 65, by the diſperſion of the armies of Coſſim Ally, and of Sujah Dowlah, and by the entire conqueſt of Oude and Allahabad; left both the Emperor and Sujah Dowlah, no hopes, but from the moderation of the victors. Lord Clive, who aſſumed the government of Bengal, in 1765, reſtored to Sujah, all that had been conquered from him, except the provinces of Corah and Allahabad; which were kept as part of an eſtabliſhment for the Emperor: at the ſame time he obtained from the ſame Emperor, a grant of the provinces of Bengal, Bahar and Oriſſa, together with the northern circars; on condition of paying the Emperor 26 lacks of rupees (260,000l.) per annum, by way of tribute, or quit rent. The Corah provinces were valued at 30 lacks more. Thus was a proviſion made for the Emperor; and a good bargain ſtruck for the Engliſh: for Bengal

and the circars might be eſtimated at a million and a half net revenue, after the charges of the civil and military eſtabliſhments, were paid. The Emperor was to reſide at the city of Allahabad; and was, in effect, under the protection of the Engliſh, to whom he owed all that he poſſeſſed. A treaty offenſive and defenſive was entered into, with Sujah Dowlah, Nabob of Oude: and his territories being ſituated ſo as to form a barrier to ours, a competent force ſtationed within them, ſerved to guard both, at the ſame time; and it was convenient to the poſſeſſor of Oude, to pay the expence of it, as if it had been retained for his ſervice only.

It was, however, the misfortune of the Emperor, that he could not accommodate his mind to the ſtandard of his circumſtances; although theſe were far more favourable now, than at any other period of his life. But being the lineal deſcendant of the houſe of Timur, he aſpired to poſſeſs the capital city of his anceſtors; and in graſping at this ſhadow, he loſt the ſubſtance of what he already poſſeſſed. For after about 6 years quiet reſidence at Allahabad, he put himſelf into the hands of the Mahrattas, who promiſed to ſeat him on the throne of Delhi: thoſe very Mahrattas, who had wreſted the faireſt of his provinces from his family; and whoſe object was to get poſſeſſion of the reſt: and who intended to uſe his perſon and name, as one of the means of accompliſhing it. A ceſſion of the Corah provinces to the Mahrattas, was the immediate conſequence of this connexion: and had not the Engliſh interpoſed, the Mahrattas would have eſtabliſhed themſelves in that important angle of the Dooab, which commands the navigation of the upper part of the river Ganges, and the whole courſe of the Jumna; and which would have brought them almoſt cloſe to our doors: beſides the evil of extending their influence and power; and of feeding their hopes of extending them ſtill further. The principle on which the Britiſh Government acted, was this: they conſidered the Corah, &c. provinces, which by right of conqueſt were originally theirs, as having reverted again to them, when they

were

were alienated from the purpoſes, for which they had been originally granted to the Emperor; and applied to the purpoſe of aggrandizing a power, which was inimical to them and to their allies. They therefore took poſſeſſion of thoſe provinces again, and immediately ceded them to the Nabob of Oude, for a valuable conſideration. Indeed, it was a miſtake originally, not to reſtore the poſſeſſion of them to Sujah Dowlah, in common with the reſt of his territories: and to ſettle a certain ſtipend in lieu of them, to the Emperor: for they, forming the frontier towards the Mahrattas and Jats, ſhould have been placed in hands, that were better able to defend them.

The Mogul, however, went to Delhi; thereby loſing all that he had acquired from the Britiſh; and has ever ſince been a kind of ſtate priſoner: living on the produce of a trifling domain, which he holds by a tenure of ſufferance; allowed him partly out of veneration for his anceſtors, and partly for the uſe of his name. It muſt be allowed, that the Princes of Hindooſtan, have generally ſhewn a due regard to the diſtreſſes of fallen royalty (when life has been ſpared) by granting Jaghires, or penſions. Ragobah's, is a caſe in point. The private diſtreſſes of Shah Allum (it is almoſt mockery to call him the Great Mogul, or Emperor) were, however, ſo preſſing, during Mr. Haſtings's laſt journey to Oude (1784) that his ſon Jewan Bucht came to ſolicit aſſiſtance from the Engliſh. Since the peace of 1782, Madajee Sindia, a Mahratta Chief, and the poſſeſſor of the principal part of Malwa, has taken the lead at Delhi; and has reduced ſeveral places ſituated within the diſtricts formerly poſſeſſed by the Jats, Nudjuff Cawn, and the Rajah of Joinagur: and it may be concluded that Sindia has in view to extend his conqueſts on the ſide of Agimere: and to eſtabliſh for himſelf, a conſiderable ſtate, or kingdom.

It might be expected that the Rajpoots of Agimere, &c. would be leſs averſe to receiving a Sovereign of their own religion, than they were to ſubmit to the Mahomedan Emperors: and, more-

over, that it would be more for the intereſt of their people, to be ſubjects, than tributaries, of the Mahrattas; theſe being mild as Governors, although the moſt unfeeling, as collectors of tribute, or as enemies: yet it appears, that they entertain the greateſt jealouſy of Sindia's deſigns; the accompliſhment of which would make their Princes ſink into a ſtate of greater inſignificance, than they are at preſent.

In a country ſo fruitful of revolutions, it is difficult to foreſee the event of Sindia's preſent meaſures; but they point ſtrongly towards raiſing him to the head of the weſtern Mahratta ſtate, or to that of a new empire founded on its ruins. The provinces of Agra and Delhi, and that whole neighbourhood, are in the moſt wretched ſtate that can be conceived. Having been the ſeat of continual wars for near 50 years, the country is almoſt depopulated, and moſt of the lands, of courſe, are lying waſte: the wretched inhabitants not daring to provide more than the bare means of ſubſiſtence, for fear of attracting the notice of thoſe, whoſe trade is pillage. Nothing but the natural fertility of the ſoil, and the mildneſs of the climate, could have kept up any degree of population; and rendered the ſovereignty of it, at this day, worth contending for. So that a tract of country, which poſſeſſes every advantage that can be derived from nature, contains the moſt miſerable of inhabitants: ſo dearly do mankind pay for the ambition of their ſuperiors; who, miſ-calculating their powers, think they can govern as much as they can conquer. In the Mogul empire, many parts of it were 1000 miles diſtant from the ſeat of government: and accordingly its hiſtory is one continued leſſon to Kings not to graſp at too much dominion; and to mankind, to circumſcribe the undertakings of their rulers.

It is highly improbable that the houſe of Timur will ever riſe again, or be of any conſequence in the politics of Hindooſtan. It It was in 1525 that the dynaſty of Great Moguls, began: ſo that reckoning to the preſent time, it has laſted 262 years: a long period for that country.

SKETCH

SKETCH *of the* MAHRATTA *Hiſtory.*

WE have frequently had occaſion, in the courſe of the above ſketch, to mention the MAHRATTAS: and as the riſe and progreſs of that ſtate, is of much importance to the general hiſtory of the decline of the Mogul empire; and ſo remarkable in itſelf, from the ſuddenneſs of its growth; it may not be improper to give a ſhort hiſtory of it, in an uninterrupted narrative; although ſome part of the former one may be repeated.

The origin and ſignification of the word MAHRATTA (or MORATTOE) has of late been very much the ſubject of enquiry and diſcuſſion, in India: and various fanciful conjectures have been made, concerning it. We learn, however, from Feriſhta *, that MARHAT was the name of a province in the Deccan; and that it comprehended Baglana (or Bogilana) and other diſtricts, which at

* This information occurs not only in Feriſhta's hiſtory of Hindooſtan, but in that of the Deccan, &c. likewiſe. The former we have before ſpoken of, as being tranſlated by Col. Dow: but the latter has never yet made its appearance in any European language. It is expected, however, that the public will ſoon be in poſſeſſion of it, from the hands of Capt. Jonathan Scott, who has already exhibited a ſpecimen of one part of his intended work; and has engaged to complete it, on conditions, which the public, on their part, appear to have performed. Feriſhta lived in the Court of Ibrahim Audil Shah, King of Viſiapour; who was cotemporary with Jehanguire in the beginning of the laſt century. Feriſhta's hiſtory of the Deccan, &c. opens to our view, the knowledge of an empire that has ſcarcely been heard of, in Europe. Its Emperors of the BAHMINEAH dynaſty (which commenced with Haſſan Caco, A. D. 1347) appear to have exceeded in power and ſplendour, thoſe of Delhi; even at the moſt flouriſhing periods of their hiſtory. The ſeat of government was at Calberga (ſee Orme's Hiſtorical Fragments p. cxxxvi.) which was centrical to the great body of the empire; and is at this day a conſiderable city. Like other overgrown empires, it fell to pieces with its own weight: and out of it were formed four potent kingdoms, under the names of Viſiapour (properly Bejapour) Golconda, Berar, and Amednagur; whoſe particular limits, and inferior members, we are not well informed of. Each of theſe ſubſiſted with a conſiderable degree of power, until the Mogul conqueſt; and the two firſt, as we have ſeen above, preſerved their independency until the time of Aurungzebe. It is worthy of remark, that the four Monarchs of theſe kingdoms, like the Cæſars and Ptolemies, had each of them a name, or title, common to the dynaſty to which he belonged; and which were derived from the reſpective founders. Thus, the Kings of Viſiapour, were ſtyled Audil (or Adil) Shah; thoſe of Golconda, Cuttub Shah; and thoſe of Berar and Amednagur, Nizam Shah, and Amud Shah.

 preſent

present form the moſt central part of the Mahratta dominions. The original meaning of the term Marhat, like that of moſt other proper names, is unknown; but that the name of the nation in queſtion, is a derivative from it, cannot be doubted: for the teſtimony of Feriſhta may be received without the ſmalleſt ſuſpicion of error, or of deſign to eſtabliſh a favourite opinion, when it is conſidered that he wrote, at a period, when the inhabitants of the province of MARHAT did not exiſt as an independant nation; but were blended with the other ſubjected Hindoos of the Deccan. Beſides the teſtimony of Feriſhta, there is that alſo of Nizam-ul-Deen *, an author who wrote at an earlier period; and who relates, in his general hiſtory of Hindooſtan, that one of the Kings of Delhi, made an excurſion from Deogur (Dowlatabad) *into the neighbouring province of* MARHAT †.

Sevajee may be conſidered as the founder of the MAHRATTA EMPIRE. His anceſtry is not very clearly aſcertained; but the moſt commonly received opinion, is, that his grandfather was an illegitimate ſon of a RANA of Oudipour, the chief of the Rajpoot Princes; the antiquity of whoſe houſe may be inferred from *Ptolemy*. (See the Memoir, page 153.) The mother of this illegitimate ſon is ſaid to have been an obſcure perſon, of a tribe named *Bonſola* (ſometimes written Bouncello, and Boonſla) which name was aſſumed by her ſon, and continued to be the family name of his deſcendants, the Rajahs of Sattarah, and Berar. After the death of his father (the Rana of Oudipour) he having ſuffered ſome indignities from his brothers, on the ſcore of his birth, he retired in diſguſt to the Deccan, and entered into the ſervice of the King of Bejapour (vulgarly Viſiapour). The reputation of his family, added to his own perſonal merit, ſoon obtained for him a diſtin-

* Nizam-ul-Deen, was an officer in the court of Acbar; and wrote a general hiſtory of Hindooſtan, which he brought down to the 40th year of that Emperor.

† This alſo occurs in Feriſhta's hiſtory of Hindooſtan. It was in the reign of Alla I. A.D. 1312. See alſo page lii, of the Introduction.

guiſhed

guiſhed rank in the armies of the King of Viſiapour; in which he was ſucceeded by his ſon. But his grandſon, Sevajee, who was born in 1628, diſdaining the condition of a ſubject, embraced an early opportunity (which the diſtractions then exiſting in the Viſiapour monarchy, afforded him) of becoming independant. So rapid was the progreſs of his conqueſts, that he was grown formidable to the armies of the Mogul empire, before Aurungzebe's acceſſion to power: having before that period, ſeized on the principal part of the mountainous province of Baglana; and the low country of Concan, ſituated between it and the weſtern ſea. He had alſo acquired from the kingdom of Viſiapour, the important fortreſs of Pannela, which commanded an entrance into the heart of it, from the ſide of Baglana; together with ſeveral other places of ſtrength. In the Carnatic, he had poſſeſſion of Gingee, together with an extenſive diſtrict round it*: and this perhaps may be conſidered rather as an uſurpation of one of the Viſiapour conqueſts, than as an acquiſition made from the original Sovereign of the Carnatic: for the King of Viſiapour appears to have poſſeſſed the ſouthern part of the Carnatic, including Tanjore†. Great part of the hiſtory of Sevajee will be found in Mr. Orme's hiſtorical fragments of the Mogul empire: and is well worth the reader's attention. At his death, which happened in 1680, his domains extended from the northern part of Baglana, near Surat, to the neighbourhood of the Portugueſe diſtricts of Goa, along the ſea coaſt; but probably not very far inland, beyond the foot of the Gauts, and other ranges of mountains, which may be conſidered as branches of them: for Aurungzebe's army kept the field in Viſiapour, at that period, and neceſſarily ſtraitened Sevajee's quarters on that ſide. Theſe con-

* The French obtained the grant of Pondicherry in 1674, from a Rajah of Gingee, who acknowledged the King of Narſinga as his ſuperior; but this latter, was at the ſame time, dependant on Viſiapour. Sevajee took poſſeſſion of Gingee, about the year 1677; and confirmed the above grant, in 1680.

† I am ignorant of the period, when the Mahratta Prince, whoſe deſcendants now hold Tanjore, came into the poſſeſſion of it.

queſts

quefts were the fruits of hardy and perfevering valour; partly, acquired in defpight of Aurungzebe, then in the zenith of his power. Sevajee had alfo plundered Surat and Golconda; and even attacked Goa, when the Portuguefe power was at its height. His fon Sambajee, though poffeffed of confiderable ability both as a ftatefman and a foldier, fell a facrifice to debauchery. In one of his loofe excurfions, he was treacheroufly feized on, and cruelly put to death, by Aurungzebe, in 1689. This, however, produced no fubmiffion on the part of the Mahrattas; who ftill increafed in power, though not fo rapidly as before. The Roman ftate had fcarcely a hardier infancy: and the mountains of Gatte, which fhelter from the ftormy Monfoon, the countries that are fituated to the leeward of them, afforded alfo a fhelter to this rifing ftate.

Sahoo, or Sahojee (vulgarly, Saow or Sow Rajah) fucceeded his father Sambajee, at a very early age; and as he inherited the ability and vigour of mind of his immediate anceftors, and reigned more than 50 years; great part of it at a feafon, the moft favourable for the aggrandizement of a ftate, that was to rife on the ruins of another; the Mahratta power grew up to the wonderful height that we have beheld it at. For the confufions occafioned by the difputed fucceffion among Aurungzebe's fons, and their defcendants, opened a wide field to all adventurers: and particularly to this hardy and enterprifing people, bred in the fchool of war and difcipline; and who had fhewn themfelves able to contend even with Aurungzebe himfelf. The conquefts atchieved under Sahoojee, are aftonifhing to thofe who do not know that Hindooftan is fo full of military adventurers, that an army is foon collected by an enterprifing Chief, who holds out to his followers a profpect of plunder; which the then diftracted ftate of the empire, afforded the moft ample means of realizing. At the time of Sahoojee's death, which happened in 1740, the Mahratta ftate or empire had fwallowed up the whole tract from the weftern fea to Oriffa; and from Agra to the

the Carnatic: and almoſt all the reſt of Hindooſtan, Bengal excepted, had been over-run and plundered. They were engaged in almoſt every ſcene of war and politics throughout the whole country; although it does not appear that they took any part in the conteſt between Nadir Shah and Mahomed, in 1738-9; except by availing themſelves of the abſence of Nizam-al-Muluck, to commit depredations on his territories in the Deccan. Probably they thought that more advantage would ariſe to them, from the diſorders conſequent on Nadir Shah's invaſion, than by their aſſiſting the Emperor in repelling him: we are alſo to conſider the advanced age of Sahoojee, at that time.

It is difficult to trace the progreſs of the Mahratta conqueſts, according to the order of time, in which they were made. We find them taking part in the diſputes between Aurungzebe's deſcendants at Delhi, as early as 1718: but it was not till 1735, that they found themſelves ſtrong enough to demand a tribute from the Emperor, Mahomed Shah. This demand terminated as we have before obſerved, in the acquiſition of the greateſt part of the fine province of Malwa; and in a grant of a fourth part of the net revenues of the other provinces in general. This proportion being named in the language of Hindooſtan, a CHOUT, occaſioned the future demands of the Mahrattas to be denominated from it: although they are by no means limited to that proportion, except in caſes where an expreſs compact has taken place: as in ſome inſtances, between the Berar Mahrattas and the preſent Nizam of the Deccan. They alſo, about the year 1736, took part in the diſputes between the Nabobs of Arcot, in the Carnatic; within which diſtrict, the principal European ſettlements on the coaſt of Choromandel, are ſituated: which diſputes eventually engaged the French and Engliſh Eaſt India Companies, in ſcenes of hoſtility for ſeveral years, as has been before obſerved.

The ſucceſſor of Sahoojee, Ram Rajah, who ſucceeded in 1740, was a weak Prince: and it happened in the Mahratta ſtate, as in

m all

all defpotic ftates of rapid growth, and recent formation, that great part of what was gained by the ability of one defpot, was loft by the imbecility of another. The two principal officers of the ftate, the *Paifhwah*, or Minifter, and the *Bukfhi*, or Commander in Chief, agreed to divide the dominions of their mafter: Bajirow, the Paifhwah, affuming to himfelf the government of the weftern provinces; and Ragojee, the Bukfhi, the eaftern provinces: the former continuing at Poonah, the ancient capital; the other fixing his refidence at Nagpour in Berar.

The Paifhwah is faid to have confined the Ram Rajah to the fortrefs of Sattarah (about 50 miles from Poonah) and then adminiftered the government in his name. It is probable, from other accounts, that Sahoojee, during the latter part of his reign, had, by a long and unrevoked delegation of power to the Paifhwah, prepared the minds of the people for this meafure; which, to them, hardly appeared to be a change: as Sahoojee, in a manner, fhut himfelf up in Sattarah, and feldom appeared in any act of government. There is fome degree of analogy between this part of the hiftory of the Paifhwahs, and that of the Mayors of the palace, in France.

So violent a partition of the empire by its Minifters, encouraged, as might be expected, the ufurpations of others, according to the degree of power or opportunity, poffeffed by each: fo that in the courfe of a few years, the ftate became, from an abfolute monarchy, a mere confederacy of Chiefs; and the loofeft example of feudal government, in the world. The two Chiefs of the divided empire purfued each their plans of conqueft, or negociation, feparately; on the general principle of refpecting each others rights. The local fituation of the Berar Chief, who was lefs powerful than the other, led him to a clofe connexion with the Nizam; though not profeffedly in oppofition to the Poonah Chief.

The invafion of Bengal (of the caufes of which we have fpoken in page lxix) was undertaken by both the Mahratta ftates in 1742, and

and 1743; with armies, ſaid to contain 80,000 horſemen each. The leaders of theſe armies appearing each to act for himſelf, the conſequence was, that the wily Aliverdy found means to bribe one party, and to ſow diſſenſions between both: by which the conſequences were leſs dreadful to the Bengallers, than they otherwiſe muſt have been. Still, however, they are remembered with horror: and I have myſelf beheld many of the objects of their wanton barbarity, mutilated and defaced. As 160,000 horſemen were let looſe, over the level country on the weſt of the Ganges; and the capital, Moorſhedabad, being 12 miles from that river, it was cut off from all ſupplies of proviſions and neceſſaries *, until Aliverdy doubly intrenched the road leading from the city to the Ganges: and thus ſupplies were conveyed in ſafety to the city, which was incloſed by another intrenchment, or rampart, of about 18 miles in circumference. The Mahrattas, did not depart out of the provinces, until the year 1744; when they had collected a vaſt maſs of plunder, and had eſtabliſhed the claim of the *Chout:* which, however, was never regularly paid. The Berar Mahrattas having, ſome years afterward, obtained poſſeſſion of the Oriſſa province, partly by conqueſt, partly by ceſſion from Aliverdy, their proximity to Bengal, from which they were ſeparated only by a ſhallow river, afforded them frequent opportunities of plundering its frontier provinces. And it was not till the year 1761, when Coſſim Ally, Nabob of Bengal, ceded the provinces of Burdwan and Midnapour, to the Engliſh, that the Mahrattas ceaſed to plunder them. The demand of the chout, however, although made occaſionally, previous to the ceſſion of Bengal to the Engliſh, had never been enforced: and during the war of 1780, when almoſt all the powers of Hindooſtan were leagued together againſt the Engliſh, it was very feebly, if at all, inſiſted on, although the Berar Rajah had an army at Cattack.

* The city of Moorſhedabad is ſituated on the weſternmoſt branch of the Ganges: which branch is navigable only during a part of the year. See Appendix, page 259.

The adminiſtration of Bajirow was as vigorous as could poſſibly be expected, conſidering how the reins of government had been ſlackened. To the Mahratta empire, it was glorious: for he wreſted out of the hands of the Portugueſe, the fortreſs of Baſſeen, and the iſland of Salſette, near Bombay; places that ſtood in the next degree of importance, to Goa. He died in 1759, leaving the Paiſhwaſhip, which was now conſidered as an hereditary eſtabliſhment, to his ſon Ballajee.

At this period the Mahrattas puſhed their conqueſts into the Panjab, and even to the banks of the Indus. But the time was approaching, when this ſudden elevation (which ſeems, in ſome inſtances at leaſt, to operate in ſtates as in individuals) was to ſerve only to make their downfall more conſpicuous. They and Abdalla, had given each other mutual umbrage: and the wars that enſued between them, which ended with the famous battle of Panniput, of which we have already given an account, in page lxxiv, was deciſive of the pretenſions of the Mahrattas as Hindoos, to univerſal empire in Hindooſtan; which they at that time (1761) found themſelves ſtrong enough to diſpute with the Mahomedans.

Ballajee died ſoon after. To him ſucceeded his ſon Maderow, a youth. The Mahrattas had now abated of their ardour for diſtant expeditions, and their quarrels were chiefly with their neighbour, the Nizam; whom they by degrees, ſtripped of a conſiderable portion of his territories on the north, and weſt of Aurungabad. Maderow died in 1772; and was ſucceeded by his ſon Narain Row, who was murdered the following year, by Ragobah, his uncle; and ſon of Bajirow, the firſt Paiſhwah who aſſumed the ſovereignty. The atrocity of this crime, made the author of it (who had been a General of reputation in the war againſt Hyder Ally, and the Nizam) deteſted by the body of the people, and caballed againſt by the chiefs: he beſides, failed in the object of clearing his way to the Paiſhwaſhip: for the widow of Narain produced a boy, who was acknowledged Heir.

Ragobah

Ragobah, who ſtood in need of allies, had engaged the Government of Bombay in his cauſe; with whom a treaty, very advantageous to the Engliſh, and indeed, embracing the principal advantages ſo long deſired by the Eaſt India Company, was entered into: and the fleet and army belonging to the Preſidency of Bombay, were accordingly put in motion, to ſecond the views of Ragobah; and to ſecure the advantages derived from the treaty. Hoſtilities were commenced both by ſea and land: and the iſland of Salſette, ſeparated from Bombay only by a narrow channel of the ſea, was taken poſſeſſion of by the Engliſh. This was a moſt deſireable acquiſition; as the ſettlement of Bombay poſſeſſed no territory, beyond the extent of the ſmall iſland in which it is ſituated; and conſequently depended on foreign ſupplies for its ſubſiſtence.

About this time, the Council General of Bengal was inveſted with a controlling power, over the other ſettlements in India: and the Mahratta war not meeting their approbation, Col. Upton was ſent to Poonah in 1776, to negociate a peace (ſince known by the name of the treaty of Pooroondar) by which Ragobah was to renounce his pretenſions, and to receive a penſion for life: and the Engliſh were to retain poſſeſſion of Salſette. But in the end of 1777, the Bombay Government again eſpouſed the cauſe of Ragobah; which meaſure terminated in a diſgraceful convention, by which the Bombay army retired to their ſettlement; and Ragobah ſurrendered to his enemies. Being of Bramin race, his life was ſpared.

The war that followed between the Engliſh and the Mahrattas, was purely defenſive on the part of the latter, after the arrival of a brigade of the Bengal army, under General Goddard: and was attended with the conqueſt, on the part of the Engliſh, of the fineſt parts of Guzerát, and the Concan; including the important fortreſſes of Baſſeen and Amedabad; in ſhort, of the whole country from Amedabad to the river Penn; and inland, to the foot of the Gauts.

Gauts. And on the ſide of Oude, the province of Gohud, and other diſtricts, together with the celebrated fortreſs of Gwalior, were reduced; and the war carried into the heart of Malwa. But the expences of a ſucceſsful war, may be too grievous to be borne: and as a war with Hyder Ally had broke out in 1780, and ſtill continued, it was juſtly eſteemed a moſt deſirable advantage to effect a peace with the Mahrattas; after detaching Sindia, the principal member of that ſtate, from the confederacy. This peace was negociated in 1782 and 1783, by Mr. David Anderſon; whoſe ſervices on that memorable occaſion, claim, as is ſaid in another place, the united thanks of Great Britain and Hindooſtan. All the acquiſitions made during the war, were given up, ſave Salſette, and the ſmall iſlands ſituated within the gulf formed by Bombay, Salſette, and the continent.

The government at Poonah, during the minority, was ſhared among a junto of Miniſters: and it is probable that ſo long a minority, may yet make ſome eſſential changes in the conſtitution of a ſtate, ſo accuſtomed to revolutions in the ſuperior departments of its government. The preſent Paiſhwah, by name Madarow (ſon of Narain Row, as beforementioned) was born in 1774.

The eaſtern Mahratta State, or that of Berar, under Ragojee, kept itſelf more free from foreign quarrels, than the other: but had its ſhare of inteſtine wars. For Ragojee, dying, after a long reign, left four ſons, Janojee, Sabajee, Modajee, and Bembajee. The firſt ſucceeded his father: but dying childleſs, in 1772, a civil war commenced between Sabajee and Modajee: the former of whom fell, in 1774; and the latter ſtill holds the government of Berar, &c.: and Bembajee adminiſters thoſe of Ruttunpour and Sumbulpour, under him: though, I believe, with leſs reſtraint from his ſuperior, than is ordinarily impoſed on Governors of provinces. Ragojee, the father of the preſent Rajah of Berar, being a deſcendant of Sevajee, the original founder of the Mahratta ſtate, the preſent Rajah is therefore by deſcent, the lawful Sovereign of the

the whole Mahratta ſtate; the Poonah branch being extinct *: but it appears that he wiſely prefers the peaceable poſſeſſion of his own territories, to riſking the loſs of them, where the object is no more than the nominal government of an empire, which even manifeſts ſymptoms of ſpeedy diſſolution.

It is not likely that either of the Mahratta ſtates will ſoon become formidable to the other powers of Hindooſtan. The eaſtern ſtate has not reſources for it: and as for the weſtern, it cannot well happen there, until ſome one of its Chiefs has gained ſuch an aſcendancy over the reſt, as to re-unite that divided power, to which the late confuſions in their government, gave birth. It requires ſome length of time to reduce a feudal government to a ſimple monarchical one: and till then, the weſtern Mahratta ſtate cannot be formidable, to the Britiſh power, at leaſt. If Sindia proceeds with his conqueſts to the north and weſt, and eſtabliſhes a new empire in Malwa, &c. this Mahratta ſtate (the weſtern) muſt be extinguiſhed; and ſuch a new empire would, perhaps, prove more formidable to Oude, and to the Britiſh intereſts, in conſequence, than any power we have beheld ſince the firſt eſtabliſhment of the Britiſh influence in India.

* Some believe that a Rajah of Sevajee's line is ſtill living; ſhut up in the fortreſs of Sattarah. It is certain that the new Paiſhwahs go thither, to receive the inveſtiture of their office; as they were accuſtomed to do, in former times: whether ſuch a Rajah be in exiſtence, or otherwiſe, is of no importance to the ſtate, as matters are now conſtituted.

Con-

CONQUESTS *of* EUROPEAN POWERS, *ſince the downfall of the* MOGUL EMPIRE.

AMONG the new powers that aroſe on the downfall of the Mogul empire, we muſt not forget to mention the French and Engliſh. As for the Portugueſe, their power had paſt its meridian, before this period: beſides, their views being (apparently) confined altogether to traffick, they wiſely made choice of inſular ſituations; ſuch as Goa, Bombay, Salſette, Diu, &c.; and never appear to have poſſeſſed any very conſiderable extent of territory, although they kept on foot a large army of Europeans. The Dutch ſyſtem was nearly the ſame: and their proſperity, in a great meaſure, grew out of the misfortunes of the Portugueſe; who having fallen under the dominion of Spain, became obnoxious as well to the jealouſy of rivalſhip, as to the revenge of the Hollanders.

The French power was but of ſhort duration, but remarkably brilliant. It was a bright meteor, that dazzled at firſt, but which ſoon burnt itſelf out, and left their Eaſt India Company in utter darkneſs. It commenced during the government of M. Dupleix at Pondicherry, in 1749. The French having aſſiſted a Soubah of the Deccan in mounting the throne, attended his future ſteps with an army, and eſtabliſhed an influence in his councils, that promiſed to be permanent: but which vaniſhed very early, by the mere breath of Court intrigue: for while M. Buſſy, at the head of the French army, was at Sanore, in the weſtern quarter of the peninſula (in 1756) a quarrel with the Miniſter of the Soubah, effected the diſmiſſion of the French. They were then compelled to retreat through an enemy's country for near 300 miles, until they reached Hydra-

Hydrabad; where they fortified themſelves, and waited for a reinforcement from Maſulipatam, their neareſt ſettlement; which was upwards of 200 miles from Hydrabad. Great ability was diſcovered by M. Buſſy, on this memorable occaſion: an account of which, as well as of M. Buſſy's warfare and negociations in general, will be found at large, in Mr. Orme's invaluable hiſtory of the military tranſactions of the Britiſh nation, in Hindooſtân. At Hydrabad, the quarrel was compromiſed: and the following year (1757) and part of the next, was ſpent by M. Buſſy, in reducing the refractory Rajahs, or Zemindars, in the northern circars; and in aſſiſting the Soubah in the execution of his own plans. But in the midſt of theſe tranſactions, he was ſuddenly recalled into the Carnatic, by M. Lally; who determined to collect the whole force of the French, within that quarter: ſo that the Soubah was left at full liberty to accede to the propoſals of the Engliſh. Lally was alſo juſtly accuſed of being jealous of the fame of M. Buſſy.

The circars, the fruits of M. Buſſy's wars and negociations in the Deccan (and which had been obtained in 1753) yet remained to the French: but Colonel Clive, who was at this time Governor of Bengal, with that promptitude and deciſion which ſo ſtrongly marked his character, ſeized on them, with a force from Bengal, in 1759; although they were defended by a much ſuperior one: and the French were deprived of reſources to carry on the war in the Carnatic. So that Lally failed to accompliſh the purpoſes for which the French intereſt in the Deccan had been relinquiſhed; namely, that of expelling the Engliſh from the Carnatic: for, on the contrary, the French not only loſt all their poſſeſſions in that quarter, but in every other part of India. Thus, their political exiſtence may be ſaid to begin, in 1749; and to end in 1761, by the capture of their principal ſettlement, Pondicherry. They appear to have been the firſt European power, that trained the natives of India to regular diſci-

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pline*; as well as the firſt who ſet the example of acquiring territorial poſſeſſions, of any great extent, in India: in which thay have been ſo ſucceſsfully followed by the Engliſh.

THE expedition of the Britiſh troops into Tanjore, in 1749, was the firſt warfare in which they were engaged, againſt the forces of an Indian Prince: and it proved unſucceſsful, as to its main object; which was, the reſtoration of a depoſed King, or rather Rajah, of Tanjore, who had applied for aſſiſtance to the Governor of Fort St. David. The price of this aſſiſtance, was to be the fort and territory of Devicottah; ſituated at the mouth of the Coleroon, or principal branch of the Tanjore river: and this fort, notwithſtanding their want of ſucceſs in the cauſe of the depoſed Rajah, the Company's troops, aided by the fleet under Admiral Boſcawen, took poſſeſſion of, after a ſhort ſiege. In the following year they were called on, by the circumſtances of the times, to take part in the diſputed ſucceſſion to the Nabobſhip of Arcot, in oppoſition to the French: who (as has been before obſerved) had taken the lead, both in the affairs of the Carnatic, and of the Deccan. We have alſo obſerved, that Nizam-al-Muluck, Soubah of the Deccan, had placed Anwar o'dien in the Nabobſhip of Arcot, (in 1743): and that the death of the ſame Nizam, in 1748, had occaſioned a conſiderable change in the politics of the Deccan; in which the French engaged ſo deeply. Chunda Saib was the perſon whom the French wiſhed to raiſe to the government of Arcot: and the expulſion of the family of Anwar o'dien, was a neceſſary ſtep towards it. Theſe conteſts, which had been carried on with great credit to the Britiſh arms, were put an end to, by the interference of the two Eaſt India

* I am far from being well informed concerning the early hiſtory of the Portugueſe in India: but by a paſſage in Mr. Orme's Hiſtorical Fragments, page 175, it would appear that they had not, in 1683, trained the natives to regular diſcipline. He ſays, "The Viceroy of "Goa took the field (againſt Sambajee) with 1200 Europeans, and 25,000 *natives of his own* "*territory*." From the confined limits of the Portugueſe territories, we may conclude that theſe were the ordinary inhabitants only.

Companies,

Companies, in Europe, in 1754: and Mahomed Ally, son of Anwar o'dien, (who had fallen in the course of the war,) was left in possession of the Carnatic: or, at least, of that portion of it, which had been recovered to him, by the British arms. The particulars of these wars, will be found in Mr. Orme's history, volume the first.

War breaking out in Europe, in 1756, the truce was reduced to a very short period. The first object of the British Councils, was to wrest the northern circars out of the hands of the French; as their revenue furnished them with the means of paying their army. The second was to drive M. Bussy's force out of the Deccan, by means of an alliance with the Nizam, or Soubah. Both of these projects were at this time defeated: the first by the miscarriage of dispatches to India: the second, by the capture of Calcutta, the chief British settlement in Bengal, in June 1756: and which induced the necessity of relinquishing every plan of hostility in the Deccan and Carnatic: in order that a force might be spared, sufficient to accomplish the recovery of so important a settlement as Calcutta; on which the whole trade to Bengal depended.

Aliverdy Cawn, Nabob of Bengal, died in 1756, and was succeeded by his grandson Surajah Dowlah. This young man either was, or pretended to be, irritated at the conduct of the English, within his dominions; and was probably, jealous of the rising power of Europeans in general, in other parts of India. He determined to expel the English (at least) from Bengal: and accordingly took their fort at Calcutta, and compelled those among them, who were not made prisoners, to retire. In the following year, an armament from Madras, under Admiral Watson and Colonel Clive, not only recovered the settlement of Calcutta, but brought the Nabob to terms. The sword, however, being thus drawn, no permanent security could be expected on the side of the intruders, unless supported by power: which could not be obtained, while a Nabob, inimical to their interests, possessed the whole power of the kingdom. Suspicions on both sides soon brought matters to a

crisis: and Jaffier Ally Cawn, an Omrah in high trust and favour with the Nabob, was negociated with; and, on condition of their assisting him in his views towards the throne, engaged to be their future *Ally and confederate*; for, so much were matters changed by the late essay of their strength, and by the genius and good fortune of Clive, that *protection* would ill express the current expectation of the British. The famous battle of Plassey, fought in June 1757, and in which, Jaffier aided the accomplishment of their wishes, by standing neuter, laid the foundation of the future power of the British nation, in Bengal and Hindoostan. From that time, they became the arbiters of the succession to the Nabobship of Bengal; which speedily led to the possession of the powers of government: for Cossim Ally, who had been placed in the room of Jaffier, disliking his situation, resolved to hazard a change at all events; and this brought on a war, which ended in the expulsion of Cossim, and left the Bengal provinces in the possession of the English, who restored Jaffier to the Nabobship. He had been deposed, on a charge of imbecility, in 1760, and was restored in 1763. Cossim retired to Sujah Dowlah, Nabob of Oude, and prevailed on him to espouse his cause. Sujah had distinguished himself in the celebrated battle of Panniput, in 1761; and is reported to have had a considerable share in turning the fortune of the day, at the very moment when victory inclined towards the Mahrattas. Whether he over-rated his own talents for war; or mistook the military character and resources of the British, he, however, engaged too rashly in the war: and the consequences were, a total defeat of his forces, joined with Cossim Ally's, at Buxar, in 1764: and this was followed by the loss of all his territories, during that and the following year.

Those, whose belief has been staggered by the accounts of the conquests made on the Indians and Persians, by the Grecian, Patan, and Mogul armies, may reconcile their doubts by attending to the events of their own days; in which a handful of French troops, effected

effected revolutions in the Deccan: and another of British, made an entire conqueſt of Bengal, Bahar, and Oude, in little more than two campaigns. Each of thoſe conquerors, both ancient and modern, after gaining certain advantages, purſued them by means of levies raiſed in the conquered countries themſelves; and thus rendered the vanquiſhed ſubſervient to the final reduction of their own country. This was even the caſe of Alexander, who ſet out with 35,000 men, and left India, with 120,000. Such meaſures could only be purſued in countries, where the habit of changing their Governors, had rendered the governed indifferent to the choice of them. Even the whole number of combatants on the ſide of the Britiſh, did not exceed 7000, at the battle of Buxar: and of theſe 1200 might be Europeans. The battle of Plaſſey was gained with an army of about 3000 men; of whom 900 only, were Europeans.

Lord Clive, who reaſſumed the government of Bengal, in 1765, found matters in the ſtate I have repreſented. He ſeized the opportunity of taking poſſeſſion of the Bengal provinces; the Nabob Jaffier Ally being juſt dead; and obtained from the nominal Mogul, Shah Aulum (who, together with his nominal Vizier, Sujah Dowlah, had, as before related, thrown themſelves on the generoſity of the Britiſh); a grant of the duanny, or adminiſtration of the revenues of Bengal, Bahar, and Oriſſa; on condition of paying the Mogul 26 lacks of rupees per annum (260,000l.). Thus a territory producing at that time, at leaſt a million ſterling, per annum, after every expence was defrayed, and containing at leaſt ten millions of inhabitants, was gained to the Company, on the ſide of Bengal: together with the northern circars, valued at near half a million more, and for which a grant was alſo obtained. Sujah Dowlah had all his territories reſtored to him, except the provinces of Corah and Allahabad, which were retained for the Mogul; together with the fortreſs of Allahabad, which was aſſigned to him, as a proper place of reſidence.

Although the Engliſh were thus firmly and peaceably eſtabliſhed in Bengal, in 1765, yet within two years afterwards, they were engaged in a very arduous conteſt in the peninſula, with Hyder Ally, the Sovereign of Myſore, leagued with the Nizam or Soubah of the Deccan. Hyder's hiſtory is now ſo well known to the generality of readers in Europe, by means of the ſeveral publications that have lately appeared *, that it will be unneceſſary to give any thing more than a ſhort abſtract of it, here.

Hyder Ally was a ſoldier of fortune, and the ſon of a perſon who ſerved in quality of *Killadar*, or Governor of a ſmall fortreſs, to one of the Kings of Myſore. He is ſaid to have acquired the rudiments of war, in the French camps: and in the year 1753, diſtinguiſhed himſelf, as their auxiliary, in the plains of Tritchinopoly. About ten years afterwards, being then at the head of the Myſore army, he dethroned his Sovereign, and governed under the title of Regent. Soon after, he extended his dominions on every ſide, the Carnatic excepted: the fine province of Bednore (or Biddanore) and the Patan Nabobſhips of Cuddapah, Canoul, &c. beſides ſome Mahratta provinces towards the river Kiſtna; and the country of the Nairs, and other ſmall ſtates on the Malabar coaſt; were added to his original poſſeſſions; until at laſt he was at the head of a ſtate, in extent equal to Great Britain, and producing a groſs revenue of four millions ſterling. The civil broils and revolutions in the weſtern Mahratta ſtate, particularly in latter times, allowed Hyder to aggrandize himſelf at its expence; but he, nevertheleſs, received ſome ſevere checks from that quarter. He was not arrived at the height of his power, when the war between him and the Engliſh, broke out, in 1767: but his power was ſuch as to alarm his neighbours, and a reſolution was taken to attack him. The Mahrattas under Maderow, entered Hyder's country on the ſide towards Viſiapour; and the Nizam, joined by a de-

* Capt. Robſon's, and M. M. L. D. T.'s Lives of Hyder Ally, &c. &c.

tachment

tachment of Britiſh troops, moved from Hydrabad towards the frontier of Myſore, ſoon after. Hyder firſt contrived to buy off the Mahrattas with a large ſum of money, and the reſtitution of ſome of the places he had taken from them. Next, he negociated with the Nizam, and had the addreſs, not only to detach him from the Engliſh, but to draw him over to his party: ſo that the Engliſh detachment was compelled by neceſſity to retire to the Carnatic; on the frontiers of which, their grand army was now aſſembling. Beſides the whimſical character of the Nizam, ſeveral other circumſtances might conſpire towards the determining him to act in the manner he did. The grant of the northern circars, and the emancipation of the Carnatic from any dependance on the Deccan, both of which were obtained from the Mogul, by the Engliſh; could not but be very mortifying to the Nizam; as having the appearance of a forcible partition of his territories. The circars, however, came into their hands (as we have ſeen) by conqueſt from the French, to whom they were originally granted by a former Soubah of the Deccan: ſo that the grant from the Mogul was merely nominal: beſides, the Nizam had been prevailed on to acquieſce in the meaſure, by an offer on the part of the Engliſh, of five lacks of rupees (50,000l.) per annum, by way of tribute or quit rent. As to his ſuperiority in the Carnatic, it had ever been nominal; yet Hyder, who now meditated the conqueſt of it, was glad to obtain from the Nizam, a grant, or Sunnud, for the Nabobſhip of it: and from this time, at leaſt, he conſidered Mahomed Ally as his rival. It is proper to obſerve, that in the days of Mahomed Ally's diſtreſs, when he poſſeſſed only a ſmall part of the Carnatic, he had engaged to cede the fortreſs of Tritchinopoly, a moſt important poſt in the ſouthern diviſion of it, to the King of Myſore, for aſſiſtance then afforded him: but this engagement never being performed, Hyder, as might be expected, adopted the claims and reſentments of the Prince, whoſe throne he had taken poſſeſſion of; and never loſt ſight of his title to Tritchinopoly. Had the

engage-

engagement been fulfilled, it would have had the effect of feparating for ever, from the Nabobfhip of the Carnatic, the provinces of Tanjore, Madura, and the reft of the fouthern provinces.

The war that immediately followed, was productive of fome fharp battles, on the common frontiers of the Carnatic and Myfore: befides which, a ftrong detachment of the Britifh army feized on Hyder's province of Coimbettore, a fertile diftrict on the fouth of Myfore, and commanding the readieft way to Hyder's capital, Seringapatam. This was the firft war in which the Britifh arms had met with any fteady oppofition from a Prince of the country; for in the affair of Tanjore, in 1749, their arms were triumphant in the end, by the taking of Devicottah, their proper object. The war was continued with various fuccefs, during the years 1767, 1768, and part of 1769; when Hyder, with a ftrong detachment of chofen troops, chiefly horfe, giving the Britifh army the flip, came within feven miles of Madras, and dictated a peace to the Government of that place. This peace was difreputable to the Britifh Councils only: fince the hands of the commander in chief (General Jofeph Smith) were tied up, at the very moment, the moft favourable for ftriking a blow; and when Hyder, fearing the General's approach, could purchafe his fecurity no other way than by intimidating Government into the meafure of laying their commands on the General, not to advance; by which meafure he might poffibly have cut Hyder and his detachment to pieces.

The Nizam, very early in the war, had been detached from Hyder's alliance; chiefly by the ftrong meafure of fending a detachment from Bengal, into the heart of Golconda; which made him tremble for his capital, Hydrabad.

The peace left matters much in the fame ftate as before the war: and whatever credit Hyder might have gained by the conclufion of it, was done away by the total defeat which he fuffered, in 1771, from the Mahratta army, within a few miles of his capital; into which he efcaped with great difficulty, with a fmall remnant of his

his army, and afterwards defied the attacks of his numerous enemies, who poffeffed neither the fkill, nor the ordinary requifites for a fiege. Hyder waited in patience, until the enemy by defolating the country, were compelled to leave it. A few years of peace not only reftored matters to their former ftate, but improved both his revenues and his army, to a degree beyond probability; and at the fame time, the diftractions that prevailed among the Mahrattas, enabled him to extend his territories at their expence. Such are the effects of firmnefs, perfeverance, and economy.

It may be afked, how the Mahrattas, who are reprefented as fo inferior in point of difcipline to Hyder's troops, came to defeat him? It is accounted for, by the vaft fuperiority in numbers of the Mahratta army (chiefly horfe) which furrounding Hyder's troops, cut off their fupplies of provifions, and compelled them to retire towards their capital; through a level, open, country, the moft favourable to the attacks of cavalry. Hyder's army was formed into one vaft hollow fquare, and marched, clofely furrounded by the Mahrattas; when the advanced front of the fquare making too hafty a ftep, feparated from the others; and the Mahrattas, pufhing through the openings thus made, threw Hyder's whole army into irreparable diforder.

We have fpoken before concerning the treaty made with the Nabob of Oude, and the mutual advantages derived to both parties; but particularly to the Britifh, from the mode of defence adopted for Oude; confidering it as a common frontier to both ftates: as alfo, concerning the departure of the Mogul, in 1771; which threw the Corah, &c. provinces, into the hands of Sujah Dowlah.

It may be fuppofed, that the oppofition made to the Mahrattas, when they attempted to take poffeffion of thofe provinces in 1772, muft have created fome difguft. Indeed the Britifh Government had long confidered the Mahrattas, in the general fcope of their defigns, as inimical to its interefts. In 1773, the Mahrattas croffed the Ganges to invade the Rohilla country. A brigade of the

 Britifh

Britiſh army, marched to the weſtern frontier of that country, and drove the Mahrattas acroſs the river. For this protection, the Rohilla Chiefs had ſtipulated to pay Sujah Dowlah forty lacks of rupees: (it muſt be obſerved that the Britiſh army moved, only as his allies) but when this eſſential ſervice was performed, the payment of the money, was evaded. This breach of treaty led to the invaſion and conqueſt of the Rohilla country, the following year, 1774. A conſiderable tract of land in the Dooab was alſo conquered from the Jats, and other adventurers; by which the boundary of Oude was advanced weſtward within 25 miles of Agra; north-weſtward, to the upper part of the navigable courſe of the Ganges: and ſouth-weſtward to the Jumna river. In the following year (1775) on the death of Sujah Dowlah, and the acceſſion of his ſon Azuph, a new treaty was made with the Britiſh Government, by which the quantum of the ſubſidy for the uſe of the brigade, was increaſed, and the province of Benares, which produced a clear revenue of 240,000l. per annum, was ceded to the Company.

The war with the Poonah, or weſtern Mahrattas, of which we have already ſpoken (in page lxxxvii) occaſioned the march of a brigade acroſs the continent to the ſide of Bombay and Surat in 1778-9. This is, perhaps, the moſt brilliant epoch of the Britiſh military hiſtory in India. The brigade, which conſiſted of leſs than 7000 men, all native troops, commanded by European officers; marched from the banks of the Jumna, to the weſtern ſea, in deſpight of the Mahrattas, whoſe empire they traverſed almoſt the whole way. The French war breaking out at this time, and Hyder Ally expecting a communion of intereſts with the French, he, in the Autumn of 1780, broke into the Carnatic with 100,000 troops; and thoſe, both of foot and horſe, the very beſt of their kind that had ever been diſciplined by a native of India. His ſucceſs, in cutting to pieces Col. Baillie's detachment; and the conſequent retreat of the Carnatic army; occaſioned the Britiſh in-

tereſts in that quarter, to be given up for loſt, in the opinion of moſt people in Europe. Happily, Mr. Haſtings and Sir Eyre Coote thought otherwiſe: and there was ſent from Bengal, to the relief of the Carnatic, a brigade of about 7000 men : together with ample ſupplies of money, and proviſions. Until the arrival of theſe troops and ſupplies, the Britiſh poſſeſſed nothing more in the Carnatic, than the ground occupied by their camps and fortreſſes. Under Sir Eyre Coote, Hyder was ſucceſsfully combatted during two campaigns; at the end of which (October 1782) he found the poſſeſſion of his object, the Carnatic, at ſo great a diſtance, that he appeared to be ſincerely deſirous of peace. So vaſt an army as he brought into the field, could not long be ſupported in it, by the revenues of Myſore alone; and the Carnatic was quite exhauſted. Anticipation of revenue in Aſiatic governments, has an immediate deſtructive effect; and cannot often be repeated. Hyder therefore ſaw the neceſſity of quitting his ambitious projects; and probably would never have purſued them, had he not expected a more early and effectual co-operation on the ſide of the French; with whoſe aſſiſtance he hoped to effect our expulſion, in a campaign or two. But he became, perhaps, more jealous of the French than of the Engliſh; and had the peace of Paris left the Carnatic in his hands, inſtead of Mahomed Ally's, the French would eventually have been on a worſe footing than they are now likely to be: for he certainly never intended that they ſhould aſſume any character in it, beyond that of merchants; although their object was the obtaining of a territorial revenue; without which, they well know, no European power can eaſily effect any thing againſt another, already in poſſeſſion of one. In this diſpoſition of mind, Hyder died ſoon * after;

* The character of the late Hyder Ally appearing to me to be but little underſtood in this part of the world, I have ventured to attempt an outline of it. His military ſucceſs, founded on the improvement of diſcipline ; attention to merit of every kind ; conciliation of the different tribes that ſerved under his banners ; contempt of ſtate and ceremony, except what naturally aroſe from the dignity of his character ; and his conſequent economy in perſonal expences (the different habits of which, form the chief diſtinction of what is called Character among ordinary Princes)

after; and was ſucceeded by his ſon Tippoo, who ſeemed determined to proſecute the war. It was ſuppoſed that an attack of Tippoo's provinces, on the weſt of India, would, by giving an immediate entry into the moſt valuable part of his dominions, draw him from the Carnatic: and although there could be little doubt of its producing this effect, yet that part of the plan, which regarded the retreat, or ſecurity of the troops, afterwards; does not appear to have been ſo well concerted. The deplorable end of this detachment *, which was commanded by General Matthews, is too well known. At laſt, Tippoo finding that the Mahrattas, his natural enemies, were at peace with the Engliſh, and conſequently at liberty to purſue their ancient enmities; and moreover that the French had left him; he condeſcended, though reluctantly, to make peace: and matters were reſtored nearly to the condition they were in, before the commencement of hoſtilities. This peace was ſigned in March 1784, at Mangalore.

During the whole courſe of Sir Eyre Coote's warfare with Hyder Ally, it appeared, that nothing deciſive could be accompliſhed, while the latter poſſeſſed ſo large a body of excellent cavalry, together with draught cattle ſo ſuperior to ours, that his guns were always drawn off, and their retreat covered; although his army was beaten. The inconveniencies ariſing from the want of a ſufficient body of cavalry, may, perhaps, be incurable; but with early and proper attention, we might ſurely have our choice of draught cattle.

Princes) together with his minute attention to matters of finance, and the regular payment of his army; all theſe together, raiſed Hyder as far above the Princes of Hindooſtan, as the great qualities of the late Pruſſian Monarch raiſed him above the generality of European Princes: and hence I have ever conſidered Hyder as the FREDERICK of the Eaſt. Cruelty was the vice of Hyder: but we are to conſider that Hyder's ideas of mercy were regulated by an Aſiatic ſtandard; and it is not improbable that he might rate his own character for moderation and clemency, as far above thoſe of Tamerlane, Nadir Shah, and Abdallah, as he rated his diſcipline above theirs.

Sir Eyre Coote ſurvived Hyder only about five months. It is a remarkable circumſtance that the Commanders in Chief of two armies, oppoſed to each other, ſhould both die natural deaths, within ſo ſhort a ſpace of time.

* In April 1783.

We have ſlightly mentioned a general confederacy of the powers of Hindooſtan, againſt the Britiſh. The Nizam or Soubah of the Deccan, having taken diſguſt at the conduct of the Madras Government towards him, in 1779, determined on a very deep revenge. This was no leſs than to engage all the principal powers of Hindooſtan and the Deccan to join in a confederacy to expel the Britiſh. The Poonah Mahrattas were already engaged, and Hyder preparing; there remained the Nizam himſelf, and the Berar Mahratta *. Each party was to purſue a particular ſcheme of attack, ſuited to his local poſition and means. Hyder was of courſe, to attack the Carnatic: the Nizam, the circars: the Poonah Mahrattas were to keep the Guzerat army under Goddard, employed; and the Berar Mahratta was to invade and lay waſte the Bengal and Bahar provinces. It has been the fate of moſt of the grand confederacies that we meet with in hiſtory, that they have terminated rather in mutual blame, than mutual congratulation. The truth is, that they are ſeldom, if ever, purſued with the ſame unity of action, and energy, that are diſplayed by ſingle ſtates. Some are more deeply intereſted than others: one fears that another will be too much aggrandized; and a third is compelled to take part, contrary to his wiſhes. In the preſent caſe, the Poonah Mahratta and Hyder were each purſuing their proper, original plans, which had no reference to the particular object of the confederacy: the projector (the Nizam) had probably no intention ever to act at all: and the Berar Mahratta, appeared to act on compulſion: for although the Berar army *did* march, it was contrived that it ſhould never arrive at the projected ſcene of action. Be it as it will, it was an awful moment for the Britiſh intereſts in India. The ſpeedy pacification of the Nizam, and the money advanced to the Berar army at Cattack (call it by what denomination we may, ſubſidy, or

* It has been ſaid, that Nudjuff Cawn, who in latter times erected for himſelf a principality in the Soubah of Agra, made a fifth party in this confederacy. Of this circumſtance, I am not ſufficiently informed.

loan)

loan) were means very opportunely uſed by the Bengal Government. Indeed the whole conduct of the war was ſuch as reflected the higheſt honour on that government: and when we ſucceſſively were made acquainted with the news of the capitulation of the whole Bombay army in 1779; of the total annihilation of the flower of the Madras army in 1780; the approach of the Berar army towards Bengal in 1781 (which ſeemed to preclude all poſſibility of relieving the Carnatic by a brigade from Bengal) together with the grand confederacy: I ſay, when the news of all theſe misfortunes, and threatening appearances reached Europe, every one had made up his mind to the certain loſs of ſome capital ſettlement, or to the mutiny of one of the grand armies, for want of pay: and many perſons thought that they ſaw the total deſtruction of the Britiſh influence and power in India. How then were we ſurpriſed, to find, that notwithſtanding all theſe miſcarriages, we were able, ſoon after, not only to face, but to ſeek the enemy in every quarter: and to hear of victories gained by the Britiſh armies, when we expected that even the very ground they fought on, had been abandoned to our enemies!

The eſtabliſhment of the Britiſh power in the Mogul empire, has given a totally different aſpect to the political face of that country, from what it would have worn, had no ſuch power ever exiſted. No one can doubt that the Mahrattas, had they been left to purſue their plans of conqueſt, would have acquired Corah and Allahabad in 1772, as well as the Rohilla country in 1773: and afterwards they might have over-run, at their leiſure, the province of Oude, and its dependencies. The Britiſh interference prevented this. On the other hand, Hyder might have kept poſſeſſion of the Carnatic. Some may be tempted to aſk whether Hyder might not be as good a Sovereign as Mahomed Ally; or the Mahrattas, as Azuph Dowlah? Whatſoever may be the anſwers to theſe queſtions, they have no reference to the Britiſh politics; which require that Hyder or Tippoo, ſhould not poſſeſs the Carnatic, in addition to

Myſore:

Myſore: and that the Mahrattas ſhould not poſſeſs Oude, or Rohilcund.

I believe there are many who think that the Britiſh might have extended their poſſeſſions in Hindooſtan, *ad libitum:* however, one of the greateſt of our Indian ſtateſmen, Lord Clive, thought that the Bengal provinces and the circars, together with a moderate tract of land round Madras *, and the iſland of Salſette, near Bombay; were fully equal to the meaſure of good policy, and to our powers of keeping poſſeſſion. Nor have his ſucceſſors *acted* otherwiſe: for our wars ſince his time have not been wars of conqueſt for ourſelves; though erroneouſly repreſented as ſuch. The late war in India may convince ſuch perſons, as require conviction on the ſubject, that conqueſts made either on Tippoo, or the Mahrattas, could not be preſerved with ſuch an army as the revenues of the conquered tracts would ſupport. We got poſſeſſion of Bengal and the circars, under circumſtances particularly favourable: ſuch as may never occur again.

The Bengal provinces which have been in our actual poſſeſſion near 23 years, (that is, from the year 1765, to the preſent time) have, during that whole period, enjoyed a greater ſhare of tranquillity, than any other part of India; or indeed, than thoſe provinces had ever experienced, ſince the days of Aurungzebe. During the above period of 23 years, no foreign enemy has made any incurſion into any part of them, nor has any rebellion happened in any of the provinces (the very inconſiderable one of the Zemindar of Jungleterry, in 1774, excepted †). Previous to the eſtabliſhment of our influence, invaſions were frequent, particularly by the Mahrattas: and one province or other was ever in rebellion; owing to a want

* That is, the Carnatic being already the property of another. No one can doubt but that it would be more for our advantage to have the largeſt part of the Carnatic in our own hands, than in thoſe of Mahomed Ally; although the whole revenue of it ſhould be laid out in its defence. But the Carnatic is our weak ſide, in more reſpects than one.

† The province of Benares, in which a Rebellion happened in 1781, is diſtinct from the Bengal provinces. It was ceded to the Britiſh, as has been obſerved above, in 1775.

of

of energy in the ruling power; an ill paid, and mutinous army; or an exceſs of delegated power. Thoſe who know what miſeries are brought on a country by its being the ſeat of war, will know how to appreciate the value of ſuch a bleſſing, as that of having the horrors of war removed to a diſtance from our habitations. There are, doubtleſs, evils that are inſeparable from the condition of a tributary ſtate, where the ſupreme ruling power, reſides at the diſtance of half the circumference of the globe: but theſe are I hope, amply ballanced by the advantages of military protection: and it is a fact not to be controverted, that the Bengal provinces have a better government, and are in a better ſtate, as to agriculture and manufactures, than any other of the Aſiatic countries, China alone excepted. But this ſtate is doubtleſs very ſuſceptible of improvement, even under a deſpotic government: though it unfortunately happens that the grand object for which the Bengal provinces are held, militates againſt the eaſe and happineſs of their inhabitants: for there can be no inducement to increaſe a national income for the purpoſe of finally enriching another nation.

The ſtate into which Hindooſtan has fallen ſince the downfall of the Mogul empire, is materially different from what it was before it was united under the Mahomedan conquerors. It was then parcelled out into ſeveral moderate kingdoms, which appear to have preſerved a degree of balance among themſelves: but now, Hindooſtan and the Deccan may be ſaid to conſiſt of ſix principal ſtates, which hold as tributaries, or feudatories, all the inferior ones; of which there are many. The reader will not be at a loſs to know that the two Mahratta ſtates, the Nizam, Tippoo, the Seiks, and the Britiſh, are thoſe I mean: for whatever verbal diſtinctions may be made, a compulſive alliance is at leaſt a dependant; if not in fact, a tributary ſituation.

I have ran over the events of the late war in India, with a brevity which may probably be deemed cenſurable, conſidering their importance and variety. But I reflected that the accounts of thoſe

events

events are in every body's hands; and that every day produces ſome freſh matter, illuſtrative of them. The hiſtory of events that have happened, and that have alſo been recorded, in our own times, may be referred to, by the aid of memory; their connexion or dependency traced; and their chronology aſcertained: but it was neceſſary to bring the events of a remoter period more within the view of the reader; the public records of thoſe times being leſs copious, as the ſcenes recorded, were leſs intereſting to public curioſity.

Geographical Division *of* HINDOOSTAN, *into* Provinces *or* States.

THE following account is divided into two parts: the firſt of which, contains the provincial diviſion of the empire, under the Moguls, ſo far as the particulars have come to my knowledge; the other contains the preſent diviſion of it, into independant ſtates, of very unequal extent and power. It will not be expected that the revenues or military force, of thoſe ſtates, ſhould be, in general, well aſcertained; or that the exact relation in which many of the inferior provinces ſtand, to the more powerful ones in their neighbourhood, ſhould be correctly known: ſince the knowledge requiſite for ſuch a detail, can only be collected from perſons who have had opportunities either of making the proper enquiries on the ſpot, or of conſulting ſuch documents, as have received the ſanction of authority. In ſome inſtances, it has been found impoſſible to reſort to authorities of this kind; as there are large tracts within this widely extended country, which no European of character (as far as I have heard) has viſited, of late years. To this may be added, that the changes are ſo frequent, that the progreſs of enquiry and information would ſcarcely keep pace with them, throughout the whole region.

Acbar's

ACBAR'S DIVISION *of* HINDOOSTAN.

I SHALL not attempt to trace the various fluctuations of boundary that took place in this empire, ſince the æra of the Mahomedan conqueſts, according as the ſeat of government was removed from Ghizni to Lahore, to Delhi, or to Agra, as ſuited the politics of the times. It is ſufficient for my purpoſe that I have already impreſſed on the mind of the reader, an idea that the provinces of Hindooſtan proper have ſeldom continued under one head, during a period of twenty ſucceſſive years, from the earlieſt hiſtory, down to the reign of Acbar in the 16th century: and that Malwa, Agimere, Guzerat, Bengal, &c. were, in turn independent; and that ſometimes the empire of Delhi was confined within the proper limits of the province of that name.

During the long reign of Acbar in the 16th century, the internal regulation of the empire was much attended to. Enquiries were ſet on foot, by which the revenue, population, produce, religion, arts, and commerce of each individual diſtrict, were aſcertained, as well as its extent and relative poſition. Many of theſe intereſting and uſeful particulars, were, by Abul Fazil, collected into a book called the * AYIN ACBAREE, or INSTITUTES of ACBAR; and which, to this day, forms an authentic regiſter of theſe matters. Acbar began by dividing HINDOOSTAN PROPER into eleven ſoubahs † or provinces, ſome of which were in extent equal to large

* It is with pleaſure I inform the reader, that an Engliſh tranſlation of the whole AYIN ACBAREE has been made, and publiſhed in Bengal, by Mr. Gladwin; and was begun under the patronage of Mr. Haſtings; to whoſe munificence, and attention to uſeful literature, the world will be indebted for the means of acceſs to a moſt valuable repoſitory of intelligence reſpecting the former ſtate of Hindooſtan.

An account of the contents of the Ayin Acbaree, will be found at the end of Mr. Fraſer's hiſtory of Nadir Shah.—— *Catalogue of Oriental MSS.* page 12.

† It is probable that Acbar might have changed the boundaries of ſome of the old ſoubahs, by adding or taking away certain circars, by way of rendering each province more compact, and the provincial capital more centrical to the ſeveral parts of it.

Euro-

European kingdoms. The ſoubahs were again divided into *circars*, and theſe ſub-divided into *purgunnahs*. If I was to apply Engliſh names to theſe diviſions, I ſhould ſtyle them kingdoms (or vice-royalties) counties, and hundreds *. The names of the eleven ſoubahs were Lahore, Moultan (including Sindy) Agimere, Delhi, Agra, Oude, Allahabad †, Bahar, Bengal, Malwa, and Guzerat ‡. A 12th ſoubah, that is, Cabul, was formed out of the countries contiguous to the weſtern ſources of the Indus, and included Candahar and Ghizni; and three new ones were erected out of the conqueſts in the Deccan: viz. Berar, Candeiſh, and Amednagur; in all fifteen.

A ſlight inſpection of the map will afford more information reſpecting the relative poſitions of theſe ſoubahs to each other, and to the adjacent countries, than whole ſheets of writing. It may be neceſſary, however, to make a few remarks on the boundaries of thoſe ſoubahs that bordered on the Deccan, in order to underſtand the extent of the new conqueſts.

Guzerat, then, extended ſouthward to Damaun, where it touched on the diſtrict of Baglana, a diviſion of Amednagur.

Malwa extended to the ſouth of the Nerbudda river; and an angle of it touched on Baglana and Candeiſh on the ſouth-weſt and ſouth, and on Berar on the eaſt. The Nerbudda formed the reſt of the ſouthern boundary of Malwa, and alſo of Allahabad. The government of Bengal extended to Cattack || and along the river Mahanuddy; but the ſoubah of Oriſſa appears not to have been formed at that time.

Of the newly erected ſoubahs in the Deccan, Candeiſh § the ſmalleſt of them, occupies the ſpace between Malwa on the north, Berar on the eaſt, and Amednagur on the weſt and ſouth.

* Few circars are of leſs extent than the largeſt Engliſh counties.

† Called alſo Illahabad.

‡ Guzerat is by ſome of the Hindoos conſidered as lying without the limits of Hindooſtan. Vide Berar Rajah's letters.

|| Called alſo Cuttack.

§ Named by Acbar, DANDEISH, in honour of Prince Danial; but at preſent it bears its *old* name.

Berar,

Berar, according to the preſent definition, has Allahabad and Malwa on the north; Candeiſh and Amednagur on the weſt; Tellingana and Golconda on the ſouth; and Oriſſa on the eaſt. I apprehend that only the weſtern parts of Berar were reduced by Acbar.

Amednagur *, the ſouthmoſt of Acbar's ſoubahs, had Candeiſh and Malwa on the north; the Gatte, or Balagat mountains on the weſt; Bejapour (or Viſiapour) and Tellingana on the ſouth; and Berar on the eaſt. The limits of this ſoubab (Amednagur) are not defined in the Ayin Acbaree; and as Acbar had wars in the Deccan during almoſt his whole reign, it may be ſuppoſed that its limits were perpetually fluctuating.

Tellingana, which in the Ayin Acbaree is called a circar of Berar, was poſſeſſed only in part by Acbar. Tellingana, of which Warangole † was the capital, comprehended the tract lying between the Kiſtna and Godavery rivers, and eaſt of Viſiapour: (anſwering to the modern province of Golconda) and was probably in more early times, an extenſive kingdom; as the Tellinga language is ſaid to be in uſe, at preſent, from the river Pennar in the Carnatic, to Oriſſa, along the coaſt; and inland to a very conſiderable diſtance.

Thus we have a ſtandard for the geographical diviſion of Hindooſtan proper, in the time of Acbar; but for the Deccan in general, no authority on record has ever come to my knowledge. It appears that Acbar reduced the weſtern ſide of it, as far down as the 18th degree of north latitude: and under his ſucceſſors, the remainder of it, together with the peninſula, as we have already ſeen, was either entirely ſubjected, or rendered tributary to the throne of Delhi (the mountainous tracts held by the Mahrattas, excepted) and formed into one government under the name of the

* The capital of this ſoubah being originally eſtabliſhed at the city of Amednagur, it gave name to the whole province, but the name of the fortreſs of Dowlatabad has in turn ſuperſeded it. In like manner the name of Tellingana has now given way to that of Golconda.

† Called Arinkill by Feriſhta. The rampart of this place can ſtill be traced, and ſhews that it muſt have been a place of vaſt extent.

DEC-

DECCAN *; which name, in its moſt extenſive ſignification, includes the whole peninſula ſouth of Hindooſtan proper. However, in its ordinary acceptation, it means only the countries ſituated between Hindooſtan proper, the Carnatic, and Oriſſa; that is, the provinces of Candeiſh, Amednagur, Viſiapour, Golconda, and the weſtern part of Berar. When the Mogul empire was extended to its utmoſt limits, by the addition of this vaſt province, its annual revenue exceeded 32 millions of pounds ſterling †: and to enable the reader to make a juſt eſtimation of its abſolute value, it is neceſſary to repeat, that the products of the earth are about four times as cheap in Hindooſtan, as in England.

* I do not mean to inſinuate that the country in queſtion *firſt* obtained its name of DECCAN, under the ſucceſſors of Acbar: on the contrary, it has been ſo diſtinguiſhed from the earlieſt times. It ſignifies the SOUTH; as POORUB does the EAST, when applied to Bengal and its dependencies.

† Mr. Fraſer, in his Life of Nadir Shah, ſtates the revenues of the provinces under Aurengzebe, as follows:

	Lacks of Rupees.		Lacks of Rupees.
Delhi - - - -	305½	Oriſſa - - - -	36
Agra - - -	286½	Cabul, and Caſhmere - -	97½
Agimere - - -	163	Malwa - - -	101
Moultan - - -	54	Guzerat - - -	152
Sindy - - -	23	Berar - - -	153½
Lahore or Panjab - -	206½	Candeiſh - - -	112
Oude - - - -	80½	Dowlatabad, or Amednagur	259
Allahabad - - -	114	Beder - - -	93½
Bengal * - - -	131	Hydrabad or Golconda -	278½
Bahar - - -	101½	Viſiapour - - -	269½

TOTAL—30 crores, 18 lacks of ſicca rupees, or about 32 millions of pounds ſterling.

* Bengal is rated in the Ayin Acbaree (towards the cloſe of the 16th century) at 149½ lacks; in Sujah Cawn's Nabobſhip, A. D. 1727, at 142½; and in 1778, at 197 lacks, net revenue.

PRESENT

PRESENT DIVISION *of* HINDOOSTAN.

HAVING given this very general idea of the original divifion of India, I fhall next endeavour to convey an idea of the prefent divifion of it, as far as refpects the principal ftates, or the powers that have appeared on the political theatre, fince the eftablifhment of the Britifh influence.

The Britifh nation poffefs, in full fovereignty, the whole foubah of Bengal, and the greateft part of Bahar; I fay *the greateft part*, becaufe it appears that there are feveral purgunnahs on the fouth-weft of little Nagpour, that were formerly claffed as belonging to Bahar, but are now in the poffeffion of the Mahrattas *. In Oriffa, they poffefs only the diftricts of Midnapour, the reft being entirely in the hands of the Mahrattas and their tributaries. Thefe poffeffions contain about 150,000 fquare Britifh miles of land; to which, if we add the diftrict of Benares, the whole will be 162,000 †; that is, 30,000 more than are contained in Great Britain and Ireland: and near eleven millions of inha-

* This circumftance was afcertained by the late Colonel Camac.

† The following is an account of (nearly) the quantity of land contained in the countries fubject to the Britifh Government, and to the Britifh Allies in Hindooftan.

BRITISH POSSESSIONS.		
Bengal, Bahar, and part of Oriffa -	149,217	
Benares, &c. - - -	12,761	
Northern Circars - - - - -	17,508	
Jaghire in the Carnatic - - -	2,436	
Bombay and Salfette - - -	200	Square Britifh miles.
		182,122
BRITISH ALLIES.		
Oude, Allahabad and Corah -	33,770	
Rohilcund, and Fyzoolah Cawn's -	11,036	
Doo-Ab - - - - - -	8,480	
		53,286
Carnatic in general - -	21,650	
Tanjore - - - - -	4,350	
		46,000
	TOTAL -	281,408

bitants.

bitants. The total net revenue, including Benares, is at prefent about 287 lacks of ficca rupees, which may be reckoned equal to 3,050,000. In this calculation, every branch of the revenue, is included; fuch as the profits arifing from falt and opium, the cuftoms, &c.: and the amount of the charges attending the collection of the revenues, and the ftipend to the Nabob of Bengal, &c. are deducted: the whole amount of the grofs revenue being 3,790,000l. The fubfidy from the Nabob of Oude is not taken into this acccount *.

The

* The following is nearly the ftate of the Company's receipts and difburfements at the prefent time, reduced to fterling money: the Sicca rupee being valued at 2s. $1\frac{1}{4}$d.

Bengal.	£.		Net Revenue.
Land Revenue of Bengal and Bahar, 1786 -	2,800,000		
Benares Revenue, clear - - -	380,000		
Oude Subfidy - - - -	420,000		
Cuftoms, Mint, &c. clear of charges -	120,000		
Salt Revenue, - ditto - -	430,000		
Opium - - - -	60,000		
		4,210,000	
Deduct charges of collection of the revenues of Bengal and Bahar, Nabob's ftipend, &c. -	740,000		
Military charges on the Company's, and on the Nabob's account - - -	1,410,000		
Civil Eftablifhment, Marine, and Fortifications	390,000		
		2,540,000	
			1,670,000
Madras.			
Land Revenue, the northern Circars included -	725,000		
Carnatic Subfidy - - -	160,000		
Tanjore ditto - - - -	160,000		
Cuftoms, &c. - - -	25,000		
		1,070,000	
Deduct Military charges on the Company's, and Nabob's account - - - -	770,000		
Charges of collecting the revenues - -	85,000		
Civil Eftablifhment, Fortifications, &c. -	130,000		
		985,000	
			85,000
Total net Revenue at Bengal and Madras			1,755,000
At Bombay the difburfements exceed the receipts, by about		300,000	
And at Bencoolen (on the ifland of Sumatra) the annual charges are about - - -		50,000	
			350,000
Total of net Revenue in India			1,405,000

It

The natural ſituation of Bengal is ſingularly happy with reſpect to ſecurity from the attacks of foreign enemies. On the north and eaſt it has no warlike neighbours ; and has, moreover, a formidable barrier of mountains, rivers, or extenſive waſtes, towards thoſe quarters, ſhould ſuch an enemy ſtart up. On the ſouth is a ſea-coaſt, guarded by ſhallows and impenetrable woods, and with only one port (and even that of difficult acceſs) in an extent of three hundred miles. It is on the weſt only, that any enemy is to be apprehended, and even there the natural barrier is ſtrong; and with its population and reſources, aided by the uſual proportion of Britiſh troops * in addition to the ſepoy eſtabliſhment, Bengal might bid defiance to all that part of Hindooſtan, which might find itſelf inclined to become its enemy. Even in caſe of invaſions, the country beyond the Ganges would be exempt from the ravages of war, and furniſh ſupplies for the general defence. But, with the whole revenue in our poſſeſſion, the ſeat of war will probably be left to our own choice.

The late Nabob of Oude, Sujah Dowlah, poſſeſſed, at the time when he firſt became an Ally of the Eaſt India Company, the whole ſoubah of Oude, and the greateſt part of Allahabad; to which, in 1774, were added the eaſtern parts of Delhi and Agra, till that time poſſeſſed by a tribe of Afghan Rohillas, and by the Jats. The Zemindary of Benares, which includes alſo the circars of Gazypour and Chunar, conſtituted a part of the dominions of

It appears that the aggregate ſum of the territorial revenue of the Eaſt India Company, together with the cuſtoms, ſalt, &c. is equal to 4,640,000l. per annum. The ſubſidies from the Nabobs of Oude, and the Carnatic; and the Rajah of Tanjore; are, of courſe, not included in this ſum. The Company's military eſtabliſhment in India, in time of peace, is about 10,000 Europeans, and 52,000 regular ſepoy infantry. It appears alſo, that the ſum total of the ſales of Eaſt India and China merchandiſe, imported into this kingdom in one year, has amounted to five millions and a quarter ſterling. Conſidering the magnitude of the ſums, in the above ſtatement, one is led to ſuppoſe that ſuch an *imperium in imperio*, as the Engliſh Eaſt India Company, never before exiſted: or, at leaſt, never was created, without much greater aſſiſtance from the collective ſtrength and reſources of the ſtate, in which it was compriſed, than this Company has ever received.

* It may appear paradoxical to ſome perſons, but I am really of opinion that it is poſſible to have too great a proportion of European troops, to ſepoys, in our Indian ſettlements.

Oude until the year 1775, when its tribute or quit rent of twenty-four lacks (ſince increaſed to forty) was transferred to the Engliſh. This Zemindary, which was lately in the hands of Cheet Sing, occupies the principal part of the ſpace between Bahar and Oude, ſo that only a ſmall part of the territory of the latter, touches Bahar on the north-weſt.

The dominions of Oude lie on both ſides of the Ganges, occupying (with the exception of Fizoola Cawn's diſtrict of Rampour) all the flat country between that river and the northern mountains, as well as the principal part of that fertile tract lying between the Ganges and Jumna, known by the name of Dooab *, to within forty miles of the city of Delhi. In ſhort, the Britiſh nation, with their allies and tributaries, occupy the whole navigable courſe of the Ganges, from its entry on the plains, to the ſea; which, by its winding courſe, is more than 1350 Britiſh miles.

The dimenſions of Oude and its dependencies may be reckoned 360 Britiſh miles in length from eaſt to weſt, and in breadth from 150 to 180: and their area is about one third part of that of the Bengal provinces; being to each other in the proportion of 53 to 162. Generally ſpeaking, the whole territory is one continued plain; and is a continuation of that extenſive level valley, through which the Ganges and its branches, take their courſe. It is, moreover, the central part of the ancient kingdom or empire of the PRASII. The capital city is Lucknow, ſituated on the river Goomty: and about 650 miles from Calcutta.

The preſent Nabob of Oude, Azuph Dowlah, ſucceeded his father, Sujah Dowlah, in 1775. He is in alliance with the Britiſh power; and a brigade of the Bengal army is conſtantly ſtationed on his weſtern frontier: thereby anſwering the purpoſes of covering Oude as well as Bengal; and of keeping the weſtern ſtates in awe.

* Dooab or Doabah ſignifies a tract of land formed by the approximation and junction of two rivers: that formed by the Ganges and Jumna rivers is called by way of eminence THE DOOAB.

It

It is advanced about 100 miles beyond Lucknow. The whole expence of it is paid by the Nabob of Oude, by a ſtipulated ſum, under the name of a ſubſidy. (See note page cxiv.)

The groſs revenues of the dominions of Oude are reckoned to be about two millions and a half ſterling: of which the new acquiſitions of Rohilcund, Corah, and other parts of the Dooab, are more than one million. The military eſtabliſhment, including the troops employed in the collection of the revenues, is from 50 to 60 thouſand men: but very few indeed of theſe, deſerve the name of regular troops.

Fizoola Cawn, a Rohilla Chief, poſſeſſes the diſtrict of Rampour, ſituated at the foot of the northern mountains: and although included in Rohilcund, yet this territory was ſecured to him, by the treaty of Loldong, in 1774. It is valued at 30 lacks of rupees * per annum: but he is in effect tributary to Oude, by being bound to furniſh his quota towards an eſtabliſhment for the common defence.

Contiguous to the weſtern bank of the Ganges, and ſurrounded by the dominions of Oude, is a ſmall diſtrict belonging to a Chief of the Patan Rohilla tribe. It is generally denominated from its capital town, Furruckabad: and is little more than 30 miles in extent.

On the ſouth-weſt ſide of the Jumna, and ſeparated from it by a narrow tract of low country, is the territory named Bundela or Bundelcund, inhabited by a tribe of Rajpoots, but deemed inferior to their brethren of Agimere. Bundelcund is ſurrounded by the dominions of Oude, Benares, and the Mahrattas: and was formerly ſubject to a Rajah of the name of Hindooput: but is now chiefly divided among his ſons, or their deſcendants. It is a mountainous tract, of more than 100 miles ſquare: and contains the

* The reader may with eaſe reduce any ſum in rupees, to ſterling, by calculating roundly, at the rate of a lack of rupees to ten thouſand pounds.

celebrated diamond mines of Panna * or Purna, together with ſome ſtrong fortreſſes; among which, Callinger is the principal. It is ſubject to the depredations of the Mahrattas: and has of late years been attempted by Madajee Sindia; who, however could not make himſelf maſter of the principal fortreſſes; and in conſequence abandoned the open country. The ancient limits of Bundelcund were much more extenſive than the preſent; extending much further towards the Nerbuddah river. Chatterpour, is reckoned the capital.

The territories of Adjidſing are contiguous to Bundelcund, on the weſt; to the Mahrattas on the ſouth, and ſouth-weſt; and to the Benares territory on the eaſt. Their whole extent, including ſome tributary Zemindars on the ſouth-eaſt, may be about equal to Bundelcund: and, like that, ſubject to the occaſional depredations of the Mahrattas. Rewah, or Rooah, is reckoned the capital; and lies on the great road between Benares and Nagpour. We know but little concerning the geography of the remote parts of this tract: nor are the boundaries well defined. The river Soane flows through it, in its courſe to the Bahar province.

Shah Alum, the nominal Emperor, or Great Mogul, of whom we have fully ſpoken, in the hiſtorical part of this Introduction, is now a mere penſioner in the hands of Madajee Sindia: who, notwithſtanding, appoints him a reſidence at Delhi.

The Jats, Jates, or Jetes, were a tribe of Hindoos, who long ſince the death of Aurungzebe, erected a ſtate in the provinces of Agra and Delhi. They at laſt fixed their capital at the city of Agra; and appear to have poſſeſſed a tract of country, along both ſides of the Jumna river, from the neighbourhood of Gwalior, to that of Delhi; in length about 160 miles, and 50 broad. Col. Dow, in 1770, eſtimated their revenue (perhaps extravagantly) at 200 lacks of rupees; and their force at 60 or 70,000 men. This

* Ptolemy's *Panaſſa*, ſeems to be meant for Panna.

nation

nation is traced by P. Wendell from the countries lying between the S E confines of Moultan, and Gohud.. It is certain that Tamerlane made war on a people called the *Getes* in his march from Batnir to Semanah. Nudjuff Cawn, about 14 years ago, dispossessed the Jats of all their country, save the very confined territory of Bhartpour. Madajee Sindia, has, in turn, stripped Nudjuff Cawn's successors of these conquests; which are now scarcely worth possessing, although 20 or 21 years ago, under Soorage Mull, they ranked among the most flourishing provinces of Hindoostan. It will be perceived that the Jats no longer exist, as a nation: all that remains to Runjet Sing, the son of Soorage Mull, being the fort of Bhartpour or Burratpour, situated about 45 miles on the west of Agra, with a small territory of 4 or 5 lacks of rupees. The Rajah of Gohud is of the Jat tribe, but unconnected with Runjet Sing.

The late Nudjuff Cawn, whom we have just mentioned, is an instance, among others, of the very sudden rise and fall of the modern states of Hindoostan. From the condition of a minor Jaghiredar, and the Commander in Chief of the imperial army, after the return of the present Mogul, to Delhi, in 1771; he became, in the course of 7 or 8 years, the possessor of a domain, yielding 150 lacks of rupees annually; and kept up an establishment of 80,000 troops of all denominations; in which, were included 23 regular battalions of sepoys. His conquests were on the Jats, the Rajah of Jyenagur, and the Rajah of Macherry (which last had reduced a considerable part of the Mewat) and in 1774, he became possessed of the city of Agra. No vestige of this greatness has remained for several years past. His empire, in a manner, died with him: and Madajee Sindia possesses most of it, at this time. This brings us to the subject of MEWAT, which is the hilly and woody tract lying on the S W of Delhi, and on the west of Agra; confining the low country along the western side of the Jumna river, to a (comparatively) narrow slip, and extending westwards, about 130 B. miles. In length from north to south, it may be 90

miles.

miles. This tract is remarkable, in that, although it is ſituated in the heart of the empire of Hindooſtan; that is, within 25 miles of its former capital, Delhi, its inhabitants have ever been characterized as the moſt ſavage and brutal: and their chief employment, robbery and plundering. We have mentioned in page xlix, the ſeverities practiſed on them in the 13th century. At the preſent time, Mewat is ſo famous a nurſery for thieves and robbers, that parties of *Mewatti* are taken into pay by the Chiefs of upper Hindooſtan, for the purpoſe of diſtreſſing the countries which are made the ſeat of warfare. In Acbar's diviſion, this tract made a part of each of the ſoubahs of Delhi and Agra: but moſt of it was included in the latter. Mewat contains ſome ſtrong fortreſſes, on ſteep, or inacceſſible hills; among which, is Alwar, or Alvar, the citadel of the Macherry Rajah. It has changed maſters very often, during the conteſts between its native Rajahs (or Kanzadeh) and the Jats, the Rajah of Joinagur, Nudjuff Cawn, and Madajee Sindia; and between theſe powers, ſucceſſively. Sindia has made a conſiderable progreſs in the reduction of it.

Bordering on the north of Mewat, and approaching with its eaſtern limit within 24 miles of Delhi, is a tract 80 or 90 miles in length, and from 30 to 40 broad, named Little Ballogiſtan: its ancient Hindoo name was Nardeck. Within the preſent century, and moſt probably ſince the rapid decline of the Mogul empire, this territory was ſeized on by the Balloges, or Balloches; whoſe proper country adjoins to the weſtern bank of the Indus, oppoſite to Moultan. Some tribes of them are alſo found in Makran. They are repreſented as a moſt ſavage and cruel race; and appear to be very proper neighbours for the Mewatti. Their territory is full of ravines, and of courſe, difficult of acceſs to invaders: it has, however, undergone the fate of its neighbours, and been ſucceſſively tributary to the Rohilla Chief, Nidjib Dowlah; to the Jats, and Nudjuff Cawn. Weſtward, it borders on the Seiks.

 The

The territory poſſeſſed originally by Nidjib Dowlah, an Afghan Rohilla (whom we have formerly noticed, as guardian to the young Emperor of Abdalla's ſetting up, in 1761 *) is, in part, in the poſſeſſion of his grandſon Golam Cawdir; his ſon Zabeta Cawn dying in the end of 1784, or beginning of 1785. This territory occupies the head of the Dooab, or that part which borders on the Sewalick mountains. It compoſed chiefly the circar of Sehaurunpour, in Acbar's diviſion of the empire; and does not exceed 100 B. miles in length, from eaſt to weſt, by 75 in breadth. The original poſſeſſions of Nidjib Dowlah comprehended alſo the country of Sirhind, on the weſt of the Jumna river; and alſo the diſtricts round the city of Delhi: but the Seiks have not only encroached on the weſt, and poſſeſſed that ſhore of the Jumna, but commit depredations in Sehaurunpour, and even to the banks of the Ganges. Sindia having alſo encroached on the ſouth, it is highly probable that this tract will not long form a diſtinct ſtate or principality.

The Seiks may be reckoned the moſt weſtern nation of Hindooſtan; for the King of Candahar poſſeſſes but an inconſiderable extent of territory, on the eaſt of the Indus. Their progreſs as a nation has been ſlightly mentioned in pages lxiv and lxvi: and ſince the complete downfall of the Mogul empire, they have acquired very extenſive domains. But their power ought not to be eſtimated, in the exact proportion to the extent of their poſſeſſions, ſince they do not form one entire ſtate; but a number of ſmall ones, independant of each other, in their internal government, and only connected by a federal union. They have extended their territories on the ſouth-eaſt, that is, into the province of Delhi, very rapidly of late years; and perhaps, the Zemindars of that country may have found it convenient to place themſelves under the protection of the Seiks, in order to avoid the more oppreſſive government of their

* Nidjib Dowlah, who was an *élevé* of the famous Gazi o'dien Cawn, died in the year 1770.

former

former maſters. Certain it is that the eaſtern boundary of the Seik's dominions, has been advanced to the banks of the Jumna river, above Delhi; and to the neighbourhood of that city: we have juſt obſerved, that the adjoining territory of Sehaurunpour, is ſubject to their depredations, if not actually tributary to them: and that they make excurſions to the very ſide of the Ganges. On the ſouth, they are bounded by the northern extreme of the ſandy deſert of Regiſtan, and on the S W their boundary meets that of Sindy, or Tatta, at the city of Behker, or Bhakor, on the Indus. On the weſt, the Indus is their general boundary, as high up as the city of Attock; near to which begin the territories of the King of Candahar: and their northern boundary is the chain of mountains that lie towards Thibet, and Caſhmere. This being the caſe, they will be found to poſſeſs the whole ſoubah or province of Lahore, the principal part of Moultan, and the weſtern part of Delhi: the dimenſions of which tract, are about 400 B. miles from N W to S E: and from 150 to 200 broad, in general: although in the part between Attock and Behker (that is, along the Indus) the extent cannot be leſs than 320. Their capital city is Lahore. We know but little concerning the ſtate of their government and politics: but the former is repreſented as being mild. In their mode of making war they are unqueſtionably ſavage and cruel. Their army conſiſts almoſt entirely of horſe, of which they are ſaid to be able to bring at leaſt 100,000 into the field. It is fortunate that the Oude dominions have the Ganges for a barrier between them and this army of plunderers. Abdalla was accuſtomed to paſs through the country of the Seiks, during his viſits to Delhi, as late as the years 1760 and 1761: and indeed meditated the conqueſt of it: but it is probable, that with the preſent ſtrength of the Seiks, no King of Candahar will again attempt either the one or the other. It was lately reported that the Seiks were in amity with Timur Shah of Candahar, and meant to allow his army a paſſage through their territories. This, however, appears highly impro-

bable:

bable: the progreſs of an Indian army effecting nearly an equal degree of deſolation, whether it enters a country on terms of hoſtility, or of amity.

Timur Shah (the ſucceſſor of Ahmed Abdalla, late King of Candahar, Koraſan, &c. who died about the year 1773) poſſeſſes in Hindooſtan, nothing more than the country of Caſhmere and ſome inconſiderable diſtricts contiguous to the eaſtern bank of the Indus, above the city of Attock. We have ſpoken of the extent of the kingdom of Candahar, in page 112 of the Memoir: and it may be proper to add, in this place, that the founder of that kingdom, the abovementioned Ahmed Abdalla, was originally the Prince, or Chief, of an Afghan tribe named Abdal (whence the term *Abdalli*) and that he was ſtripped of his country by Nadir Shah, and compelled to join the Perſian army in 1739. On the death of Nadir, he ſuddenly appeared among his former ſubjects, and in a ſhort time, erected for himſelf a conſiderable kingdom in the eaſtern part of Perſia: adding to it, moſt of the Indian provinces ceded by the Mogul to Nadir Shah. It has been aſſerted, that Abdalla had ariſen to a high command in the Perſian army; and that, his department, of courſe, occaſioning a large ſum of money to centre with him; he, on the death of Nadir Shah, availed himſelf of the uſe of theſe treaſures, to carry off a part of the army. He eſtabliſhed his capital at Cabul near the hither foot of the Indian Caucaſus: and it appears by the accounts of Mr. Forſter, who traverſed the country of Timur Shah in 1783, that his ſubjects live under an eaſy government: that is, for an Aſiatic one. The revenues and military force of Candahar, have not come to my knowledge. The military eſtabliſhment *has* been given at 200,000 men. Ahmed Abdalla had regular infantry, cloathed like the Britiſh ſepoys: and, at one time, made uſe of the Britiſh manufactures for that purpoſe: the trade went by Sindy, and up the Indus and its branches, to Cabul. This trade has long been at an end.

The province of Sindy, or that lying on both ſides of the lower part of the river Indus *, is ſubject to a Mahomedan Prince, who is tributary to the King of Candahar; it being among the provinces ceded to Nadir Shah, by Mahomed Shah, in 1739. Although it properly belongs to Hindooſtan, it is ſo detached from it by the great ſandy deſert, that it takes no part in its politics. This province is deſcribed in page 285, to which the reader is referred.

The province of Cutch, on the S E ſide of Sindy, as well as the weſtern parts of the peninſula of Guzerat, are governed by Rajahs of their own: and do not appear to have undergone much change, by the late revolutions in Hindooſtan. Cutch is not only a barren country, but in its nature too ſtrong to be eaſily attacked. And the weſtern part of Guzerat is mountainous and woody; and inhabited by a wild, hardy, race: and therefore on both accounts, unfavourable to the progreſs of a Mahratta army.

The Mahrattas, as has been obſerved before, form two diſtinct empires, or ſtates; that of Poonah, or the weſtern: and Berar, the eaſtern. Theſe ſtates collectively, occupy all the ſouthern part of Hindooſtan proper; together with a large proportion of the Deccan. Malwa, Oriſſa, Candeiſh, and Viſiapour; the principal parts of Berar, Guzerat, and Agimere; and a ſmall part of Dowlatabad, Agra, and Allahabad, are compriſed within their extenſive empire; which extends from ſea to ſea, acroſs the wideſt part of the peninſula; and from the confines of Agra northward, to the Kiſtna ſouthward; forming a tract of about 1000 Britiſh miles long, by 700 wide.

The weſtern ſtate is divided among a number of Chiefs or Princes, whoſe obedience to the Paiſhwah, or Head, is, like that of

* The celebrated Sir William Jones very ingeniouſly remarks, that "it is uſual with the "Aſiatics to give the ſame names to the countries which lie on both ſides of any conſiderable "river." Thus the province of Sindy is divided by the Indus; Bengal by the Ganges; and Pegu by the Irabatty. Egypt, in like manner, is divided by the Nile. Probably, the facility of acceſs to either ſide, by means of a navigable river and an occaſional inundation, ſubjected each of the diviſions, formed by the courſe of the river, to the conſtant depredations of its oppoſite neighbour; till neceſſity produced a compromiſe, which ended in joining them in one community.

the

the German Princes to the Emperor, merely nominal at any time; and, in ſome caſes, an oppoſition of intereſts begets wars, not only between the members of the empire themſelves, but alſo between the members and the head. In fact, they are ſeldom confederated but on occaſions that would unite the moſt diſcordant ſtates; that is, *for their mutual defence:* for few occaſions of foreign conqueſts or plunder, are of magnitude enough to induce them to unite their armies.

Was I inclined, I want ability, to particularize the poſſeſſions and ſituations of all the Chiefs that compoſe this Mahratta ſtate. I ſhall therefore attempt only to mention the principal ones, commonly ſtyled *Jaghiredars*, or holders of *Jaghires* *: their titles to their poſſeſſions, being nominally during their life time only; although they have long ſince become hereditary.

The Paiſhwah, or nominal head of the weſtern empire, reſides at Poonah, which is ſituated at the ſouth-weſt extreme of the empire, and about 100 miles from Bombay. There are three principal Jaghiredars on the north of Poonah; and two on the ſouth: the firſt are, Madajee Sindia, Tuckajee Holkar, and Futty Sing Gwicuar; and the latter, Purſeram Bow, and Raſtah, who is more commonly ſtyled the Meritch *Wallah* (or Meritch Man) from his having eſtabliſhed his capital at that city †, previous to the conqueſt of it, by Hyder Ally. Before I proceed to particularize the

* Jaghire, means a grant of land from a Sovereign to a ſubject, revokable at pleaſure; but generally, or almoſt always, for a life rent.

† The exact geographical poſition of this important fortreſs and city, is not aſcertained; but it is with great reaſon ſuppoſed to be the ſame with Mirje or Mirdji, of Mandeſloe's route, drawn by P. du Val: which is ſituated near the north bank of the Kiſtna river, about 70 road miles S W from Viſiapour; and 130 from Poonah. It is alſo, moſt unqueſtionably, the ſame place with Merrick; a place of conſequence, in Aurungzebe's wars with Sambajee. In the Select Committee's reports, it is named indifferently, Merrick and Meritz. It may be collected from thoſe reports, and from Mr. Orme's hiſtorical fragments, that this place is ſituated on the north bank of the Kiſtnah; on the N W of Sanore-Bancapour, and on the S W of Viſiapour; and its diſtance from the former, ought to be very conſiderable; for part of the Circars of Nourgal, Azimabad, and Raibaug, intervene between thoſe of Bancapour and Meritz. And this is the caſe with Mirjé on the map, which is about 108 G. miles from Bancapour. There is alſo a fortreſs of great note in Aurengzebe's, and in Hyder Ally's wars, named Darwar, or Danwar. This appears to be comprehended in the Circar of Bancapour, and about 30 coſſes on the S E of Meritz. I have not ventured to place Darwar in the map: but both the poſition of it, and of Hubely, make it appear ſtill more probable that Mirje is the ſame with Meritz, Meritch, or Merrick.

different partners or ſharers, in the ſeveral provinces, it will be neceſſary to obſerve that the Mahratta dominions have in ſome places, been portioned out among the different Chiefs, after a method that appears the moſt confuſed and intricate, imaginable. For not only the *Purgannahs*, or grand diviſions of provinces, are divided in ſome inſtances, among three different powers; but even the revenues of particular villages, are divided in like manner; and in conſequence, diſtinct officers are appointed, for the purpoſe of collecting the reſpective ſhares *.

The province or ſoubah of Malwa (to which this account particularly applies) one of the moſt extenſive, and the moſt elevated, and highly diverſified in Hindooſtan, is divided among the Paiſhwah, Sindia, and Holkar: as is alſo the ſmall ſoubah of Candeiſh, adjoining to it, on the ſouth; and which contains the fine city of Burhanpour, in the poſſeſſion of Sindia.

The province of Agimere, has only in part been poſſeſſed by the Mahrattas, and that part is now entirely in Sindia's hands. What is here expreſſed, relates only to what may be termed Agimere *proper*; and not to the whole ſoubah of that name, according to its geographical definition in the Ayin Acbaree: ſince the three great Rajpoot principalities, Oudipour, Joodpour, and Joinagur, as well as Rantampour, are there, included in it. Theſe Rajpoots principalities (of which more will be ſaid hereafter) have long been held tributary to the Mahrattas; and now, by the aſcendancy of Sindia, andby virtue of his local ſituation, he converts the whole of the tribute to his own uſe.

The largeſt, as well as the fineſt part of Guzerat, is divided between the Paiſhwah, and Futty Sing Gwicuar (or Gwicker) the latter holds his ſhare chiefly, in the northern part of it.

The provinces on the ſouth of Poonah, are divided between the Paiſhwah, and the *Jaghiredars*, Purſeram Bow, and Raſtah. So little is known in Europe concerning the Geography of this part

* It is probable that this irregular diviſion, aroſe from ſome accidental circumſtances at the time when the conqueſt was made; and which cannot now be traced: but as it has the appearance of an expedient, calculated to check and reſtrain the power of the different Jaghiredars, it is generally ſuppoſed to be the effect of policy and deſign. A.

of

of the country, that the map of it, is almoſt a blank. I am by no means certain where to place the common boundary of the Mahratta and Tippoo's countries, in this quarter. Hyder took poſſeſſion of Meritch (Meritz or Mirje) on the north bank of the Kiſtna, in 1778 ; and, I apprehend, never relinquiſhed it.

The Paiſhwah, or his repreſentatives, poſſeſs alſo many other diſtricts in the N E, and eaſt, parts of Malwa, &c. for the Poonah territories, or thoſe of its Jaghiredars, cloſe on the river Jumna, oppoſite to Calpy : and alſo extend along the northern bank of the Nerbudda river, almoſt to its ſource ; and encroach deeply on the S W ſide of Bundelcund, according to its ancient limits. The diſtricts of Sagur, and Mundella, are ſituated in this quarter. Thus it appears, that the territories ſubject to Poonah, are ſeparated, or rather inſulated, in an extraordinary manner ; and this circumſtance alone, muſt influence the domeſtic as well as the foreign politics of this ſtate : ſince any conſiderable Jaghiredar may eaſily withhold the government's ſhare of the revenues, and convert it to his own uſe.

From what has been ſaid, it will appear impoſſible to diſcriminate the poſſeſſions of the Paiſhwah, any more than thoſe of his Jaghiredars, on the map. All that can be done, is, to mark the body of each tract of land, in which the Paiſhwah and the particular Jaghiredars participate. It is underſtood that the Paiſhwah poſſeſſes a larger ſhare, in the weſtern part of the Deccan, than elſewhere. This tract is naturally very ſtrong, particularly on the weſt ſide towards the ſea, where a ſtupendous wall of mountains, called the Gauts, riſes abruptly from the low country, called the Concan (or Cockun) ſupporting, in the nature of a terrace, a vaſt extent of fertile and populous plains, which are ſo much elevated, as to render the air cool and pleaſant. (See Memoir, pages 179 and 213.) This elevated tract, is continued not only through the Mahratta territories, but extends through the peninſula, to the ſouthern extreme of Myſore ; and is named *Balla-Gaut*,

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throughout its whole extent: meaning literally, the *higher*, or *upper Gauts* *. In the peninſula, it is applied in contradiſtinction to *Payen-Gaut*, or the *lower Gauts:* but in the Deccan, it appears to be uſed only as a proper name, and not as a correlative: we having never heard of the Deccan, Payen-Gaut.

Nor is it leſs difficult to aſcertain the ſum of the revenue of this ſtate, than to particularize the extent of the diſtricts, from whence it is collected. The moſt intelligent and beſt informed perſons that I have conſulted on the occaſion, will not venture to give an opinion on it. One perſon (a native of India) has ſtated the revenue at 12 crores of rupees, or 12 millions ſterling: and the net receipts, Jaghires deducted, at five crores. The ſame account makes the military eſtabliſhment in the field, to be 200,000 troops, foot and horſe; beſides an equal number in garriſon. Another account of the revenue, by an European gentleman, reckons 7 crores for the net revenue. If the provinces poſſeſſed by this ſtate, were to be rated in the ſame proportion as in the time of Aurungzebe, the net revenue would be about 8 crores of rupees, or 8 millions ſterling.

Sindia is unqueſtionably the moſt powerful Jaghiredar within this ſtate; and ought to be regarded as a ſovereign Prince. Since the Mahratta Peace (1783) he has extended his frontier from Malwa towards the Jumna; ſwallowing up moſt of the petty ſtates that heretofore exiſted there: and in particular, that of Gohud, including the celebrated fortreſs of Gwalior (ſee page 157 of the Memoir). He has alſo carried his arms northward to Delhi, and into the provinces of Mewat and Jyenagur; reducing many fortreſſes, and a conſiderable tract of country, which were heretofore ſucceſſively poſſeſſed by the Jats, and Nudjuff Cawn. In fine, he poſſeſſes the perſon of the nominal Great Mogul, and all that can

* Gaut, or Ghaut, ſignifies either a paſs through mountains, or a landing-place on the bank of a river. In the former ſenſe, the term has been applied to the Carnatic, which is divided by ridges of mountains, abounding with paſſes and defiles.

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be accompliſhed by virtue of his name. It would appear that Sindia's plans embrace too great a variety of objects at one and the ſame time: for, not long ago, his troops were compelled to retire from Bundelcund, in which they poſſeſſed moſt of the open country, the fruits of a very recent conqueſt. He ſeems bent on extending his conqueſts on the north and weſt: but time alone can diſcover whether he will ſucceed in eſtabliſhing a permanent empire, on that ſide. The revenue of his paternal, or original dominions, in Malwa, &c. has been eſtimated at one crore of rupees per annum. It is difficult to aſcertain what the value of his new acquiſitions are, in their preſent ſtate: for thoſe portions of Agra, Delhi, &c. which he holds, having been ſo long ſubject to the depredations of contending armies, little benefit can be derived from them, at preſent *. Gohud, one of theſe acquiſitions, is eſtimated at 20 or 30 lacks per annum. Holkar is ſuppoſed to poſſeſs 80 lacks per annum, in his ſhare of Malwa. Sindia's capital city is Ougein, near the ancient city of Mundu, the capital of the Chilligi Kings of Malwa: and Holkar's capital is Indore, ſituated about 30 miles on the weſt of Ougein.

The Berar or Nagpour Rajah, Moodajee Boonſlah (or Bonſola) poſſeſſes the principal part of Berar, together with the province of Oriſſa †. The remainder of Berar is held by the Nizam, or Soubah of the Deccan, who pays a *chout*, or fourth part of its clear revenues to Moodajee. On the weſt and ſouth, the Berar dominions border on, or are intermixed with, thoſe of the Nizam: on the N W and north, are the provinces of Bopal, Gurry-Mundella, &c. tributaries of Poonah; together with the territories of Adjid Sing. On the eaſt, the Nagpour territories thruſt themſelves between the Britiſh poſſeſſions in Bengal, and thoſe in the northern circars, ſo

* Theſe territories have formerly yielded 3 or 4 crores per annum: but they are now in a ſtate of deſolation, which it is impoſſible to form any idea of, without having actually beheld them. A. [This note is by a gentleman, who has been on the ſpot.] See alſo page lxxviii.

† Oriſſa, is nominally one of the Britiſh provinces, but we have obſerved in another place, that only a very ſmall part of it, is ſubject to the Bengal government.

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as to occupy near 180 miles of the country adjacent to the ſea ; and, of courſe, to break the continuity of their poſſeſſions on the ſea coaſt. Moodajees dominions are very extenſive, being in length from eaſt to weſt 550 Britiſh miles, and in ſome places 200 from north to ſouth. He does not poſſeſs all this in full ſovereignty ; for Ruttunpour and Sumbulpour are little more than tributary, and are governed by his brother Bembajee. We know leſs of the interior parts of Berar, than of moſt other countries in Hindooſtan ; but, by what we do know, it does not appear to be either populous or rich. (See Memoir page 144.) Nagpour is the preſent capital, and the reſidence of Moodajee ; and it is ſituated about midway between Bengal and Bombay.

Cattack, or Cuttack, the capital of Oriſſa, is a poſt of conſequence on the river Mahanuddy, as it lies in the only road between Bengal and the northern circars ; and the poſſeſſion of this city and its dependencies, gives the Berar Rajah more conſequence in the eyes of the Bengal government, than even his extenſive domain, and centrical poſition in Hindooſtan.

Moodajee has been recogniſed (page lxxxviii) as a deſcendant of the original founder of the Mahratta empire, Sevajee. The ſum of his revenue, is variouſly ſtated. Some have reckoned his part of Berar, at 84 lacks of rupees, per annum ; and Cattack at 24 : while others have allowed only 60, for his whole revenue. If we take it at the higheſt calculation, 108 lacks, he ought not to be conſidered in a formidable light, by the Britiſh power. But placing the actual ſum of his income out of the queſtion, his dominions are too widely extended, in proportion to their value, to form a powerful ſtate. Cattack is no leſs than 480 miles, from the capital Nagpour. It has been well obſerved, that the ordinary cauſe of jealouſy between neighbouring ſtates, is done away, in the caſe of Bengal and Berar, by the nature of that part of the Berar dominions, which borders on Bengal ; it being generally, woody and uninhabited : ſo that the virtual boun-

boundaries of both countries are removed to a diſtance from each other.

Theſe are the principal of the countries reduced into the form of governments, by the Mahratta Chiefs : but ſo habituated are they to rapine and plunder, that few of the neighbouring ſtates, but have, at one period or other, felt and acknowledged their power. Bengal and Bahar were, for a ſhort time, ſubjected to a regular tribute ; and the Carnatic, Myſore, the Nizam's provinces, the Dooab, Bundelcund, and the ſouthern parts of Delhi, have been frequently over-run. Their predatory excurſions ſometimes carried them 1200 miles from their capital. But the loſs of the battle of Panniput in 1761, induced a degree of caution in their military enterprizes : and from that period, their power appears to have been on the decline. Shut out of Bengal, Oude, and the Carnatic, by the Britiſh arms, and out of Myſore by Hyder's, their field of action has been much circumſcribed ; and the late war with the Britiſh power, diſcovered their weakneſs to all Hindooſtan.

I am not ſufficiently informed on the ſubject, to be able to particularize all the different provinces, or diſtricts, that are tributary to the Mahratta ſtates. Some have been already mentioned ; and among others, the Rajpoot principalities of the Soubah of Agimere : and which, from their former importance and weight, in the internal politics of the Mogul empire, deſerve particular notice.

In the early part of the preſent century, theſe ſtates, collectively, appeared ſo formidable to the ſucceſſor of Aurungzebe, that he was conſtrained to leave them in quiet poſſeſſion of their independency ; during the ſedition of the Seiks, in Lahore (See page lxiv). Vaſt have been the changes ſince that time : for what the diſciplined armies of Aurungzebe and his ſons, could not accompliſh, has been effected by the Mahratta freebooters : ſo much eaſier is it to ruin a country, than to make a conqueſt of it. The hiſtory of the decline of the Rajpoot principalities, is foreign to the preſent work : it is ſufficient to obſerve, that they are reduced to their preſent low ſtate,

merely by the depredations of Mahratta detachments; which being composed of light horse, and accustomed to divide into innumerable small parties; they by their rapid and desultory movements, at once spread desolation, and elude the attacks of the inhabitants. This must be understood to relate only to the open parts of Rajpootana: the mountainous parts being yet free from their incursions.

RAJPOOTANA was divided into three great principalities, under the names of Oudipour, Joodpour, and Ambeer, (or Amere) now better known by that of Joinagur, or Jyenagur. Oudipour was also named Meywar, or Midwar; and Joodpour, Marwar. In Acbar's division of the empire, these principalities were classed as belonging to the soubah of Agimere, which is sometimes called Marwar. It is not an easy task, by means of the geographical matter extant, to assign the precise limits and dimensions of these principalities; which occupy the space between the western confines of Agra, and the N E part of Guzerat; and between the sandy desert (or Registan) and Malwa: that is an extent of 330 British miles from N E to S W; and 200 broad, in the widest part. Their relative situations, and comparative dimensions, may be seen in the map; where Jyenagur or Jyepour, will be found to lie to the northeast; Oudipour to the S W; and Joodpour to the N W, bordering, angularly, on the other two. Pere Wendell's MS. account of these states, from whence I have extracted many of the above particulars, states the revenues of Oudipour at 10 lacks of rupees, Marwar at 40, and Jyenagur at 40, per annum, in the year 1779 *. The two former are very mountainous, with a sandy soil, in the valleys: the latter is the most fertile, and was, about the middle of this century, in a high state of improvement, under the government of the celebrated Rajah Jyesing, or Jessing; who founded the new capital of Jyepour, which has had the effect (not unusual in Hindoostan)

* The whole revenue of the soubah of Agimere, in the time of Acbar, appears to have been only about 75 lacks. Aurungzebe is said to have doubled the land-tax on the Rajpoots: and Agimere is accordingly stated in Mr. Fraser's account, at 163 lacks of rupees.

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of changing the name of the province to that of the capital. P. Wendel repreſents Jyepour as a place of great wealth and commerce in 1779, being the *entrepot* of the principal part of the goods, that are brought from every quarter of India. The Rajah built alſo an obſervatory in his capital, and invited Pere Boudier to it, in 1734. It is feared that the confuſions that have ſo long prevailed in this province, muſt have greatly reduced the wealth and importance of the capital. We have mentioned before, that Sindia receives the tribute of all the three Rajpoot provinces, and converts it to his own uſe : and that he had made ſome conſiderable conqueſts in them, particularly in Jyenagur.

It is probable that in early times, the whole Rajpootana conſtituted one entire kingdom, or empire, under the Rana or Prince of Oudipour, who has in all times, ſince we had any knowledge of his hiſtory, been conſidered as the head of the Rajpoot ſtates. A long eſtabliſhed cuſtom of homage to a temporal Prince, from thoſe, who do not acknowledge his ſuperiority in any other way, ſeems to prove the exiſtence of real power in the hands of his anceſtors. In modern times the Rana of Oudipour ſeems to have been conſidered ſomewhat in the ſame light as the general of the Amphyctions was in Greece. Cheitore was the ancient capital of the Rana, a place much celebrated for its ſtrength, riches, and antiquity, when it was taken and deſpoiled by Acbar in 1567 : Oudipour is the preſent capital.

The Rajpoots are not confined entirely to the tract abovementioned, or even to the ſoubah of Agimere : ſince ſome inferior tribes of them are ſettled in Bundelcund, and in Gurry-Mundella. Others, according to Thevenot, are ſettled in Moultan ; and indeed he repreſents Moultan as the original country of the Kuttries, from whom the Rajpoots ſprung. (See page 93 of the Memoir.)

Of the countries of Nagore, Bickaneer, Jaſſelmere, and thoſe bordering on the lower part of the courſe of the river Puddar, and on the ſandy deſert, we know little at preſent, except that they form

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a number of petty Rajahſhips; and are underſtood to be moſtly inhabited by Rajpoots.

The Rajpoots are ordinarily divided into two tribes or claſſes; thoſe of RATHORE, and CHOHAN, or SEESODYA. Marwar, or the N W diviſion of Agimere, is the proper country of the former; and Meywar, or Oudipour, of the latter. The reader will be pleaſed to obſerve, that Cheitore is alſo ſynonimous with Oudipour, or Meywar. The Rathore tribe were originally the moſt numerous of the two. It has often been aſſerted, and by the late Col. Dow, among others, that the Mahratta Chiefs had their origin from the Rathore tribe: and to countenance this opinion, the etymology of the name Mahratta, has been drawn from RATHORE; prefixing to it, MAHA, or Great. We have ſeen, however, in page lxxix, that the fact is very different, and reſts on the foundation of hiſtoric records: the term Mahratta being derived from Marhat, or Marheyt, the name of the province in which Sevajee firſt eſtabliſhed his independency: and this etymology appears to be perfectly natural. And by the ſame rule, Sevajee muſt have been of the Seeſodya tribe, as drawing his lineage from Oudipour; and not of the Rathore tribe, as erroneouſly repreſented.

Of the five northern circars, Cicacole, Rajamundry, Ellore, and Condapilly *, are in the poſſeſſion of the Engliſh; and Guntoor is in the hands of the Nizam. The four firſt occupy the ſea coaſt from the Chilka lake on the confines of Cattack, to the northern bank of the Kiſtna river; forming, comparatively, a long, narrow ſlip of country, 350 miles long, and from 20 to 75 wide. The nature of the country is ſuch, as to be eaſily defenſible againſt an Indian enemy, it having a barrier of mountains and extenſive foreſts on one ſide, and the ſea on the other; the extremities only being open. Its greateſt defect is in point of relative ſituation to Bengal

* Theſe circars, or provinces, were originally denominated from their poſition in reſpect to Madras, on which they depend: and the term *northern circars* has at length been adopted by the Engliſh in general.

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and Madras, it being 350 Britiſh miles from the firſt, and 250 from the latter; ſo that the troops deſtined to protect it, cannot be reckoned on, for any preſſing ſervice that may ariſe at either preſidency. The circars, in point of ſtrictneſs, appertain partly to Golconda (or the Deccan) and partly to Oriſſa; and are held of the Nizam on condition of paying him a ſtipulated quit rent. When the French took poſſeſſion of the five circars, in 1753, they were valued at about 43 lacks of rupees per annum. The Engliſh never poſſeſſed Guntoor, which was eſtimated at near 7 lacks of the above ſum: ſo that 36 lacks (360,000l.) ſhould be taken for the true value of the Engliſh poſſeſſions in the circars. In 1784, they were reckoned to produce about that ſum. It would appear that the Nizam, by retaining Guntoor, has more than an equivalent for the *peſhcuſh* or tribute, which is 5 lacks per annum.

The poſſeſſions of the Nizam, or Soubah of the Deccan (a younger ſon of the famous Nizam al Muluck) compriſe the province of Golconda, that is, the ancient province of Tellingana, or Tilling, ſituated between the lower parts of the courſes of the Kiſtna and Godavery rivers, and the principal part of Dowlatabad; together with the weſtern part of Berar, ſubject (as has been ſaid before) to a tribute of a chout, or fourth part of its net revenue, to the Berar Mahratta. The Nizam has the Paiſhwah, or Poonah Mahratta on the weſt and north-weſt; the Berar Mahratta on the north; the northern circars on the eaſt; and the Carnatic, and Hyder Ally on the ſouth. I am not perfectly clear in my idea of his weſtern boundary, which, during his wars with the Mahrattas, was ſubject to continual fluctuation: but I underſtand generally that it extends more than 40 miles beyond the city of Aurungabad, weſtwards; and comes within 80 miles of the city of Poonah: and that on the S W it goes conſiderably beyond the river Beemah, and to the borders of Sanore-Bancapour. His capital is Hyderabad, or Bagnagur, ſituated on the Mouſſi river, near the famous fortreſs of Golconda.

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The diſtricts of Adoni and Rachore, which were in the hands of Bazalet Jung (brother to the Nizam) during his life time, are now in the hands of the Nizam. The Sourapour, or Sollapour Rajah, on the weſt of the Beemah river, together with ſome other Rajahs, are his tributaries.

Probably the Nizam's dominions, including his tributaries and feudatories, are no leſs than 430 miles in length, from N W to S E, by 300 wide. Till he took poſſeſſion of the Guntoor circar in 1780, his dominions no where touched on the ſea coaſt.

The Guntoor circar (called alſo Mortizanagur and Condavir) occupies the ſpace between Condapilly, the ſouthmoſt of our four circars, and the northern part of the Carnatic; extending along the ſea coaſt of the bay of Bengal more than 30 miles. The poſſeſſion of this diſtrict to the Engliſh, would have been extremely eligible, as well for the purpoſe of ſhutting out the French nation from the Deccan, as to keep open a communication with the northern circars, and to preſerve the continuity of our poſſeſſions, and thoſe of our allies. Although the maritime parts of this circar are flat and open, yet the interior part of it contains ſome very ſtrong fortreſſes, and poſts. The Nizam took poſſeſſion of it on the death of his brother Bazalet Jung, and ſtill holds it.

It has not been in my power to obtain, even a tolerably exact account of the ſum of the Nizam's revenue; or of his military eſtabliſhment: the latter, however, is far from being reſpectable, on the ſcore of diſcipline. The former has been ever varying, and generally diminiſhing; by reaſon of the encroachments of the Poonah Mahrattas, and the Myſoreans: it is ſaid to be reduced ſo low as 130 lacks of rupees, annually. But beſides this ſum of actual revenue, it muſt be taken into the account, that he has depending on him, many Jaghiredars, who hold their lands on the tenure of military ſervice.

The dominions of Mahomed Ally, Nabob of the Carnatic, and an Ally of the Eaſt India Company, commence on the ſouth of the

the Guntoor circar, and extend along the whole coaſt of Coromandel to Cape Comorin. It muſt be underſtood that I mean here to include Tanjore, Marawar, Tritchinopoly, Madura, and Tinevelly; all being appendages of the Carnatic. Under this deſcription, the Carnatic is not leſs than 570 Britiſh miles in length from north to ſouth, but no where more than 120 wide, and commonly no more than 75. Such a long, narrow, tract of country, bordered by an active and powerful enemy, whoſe territories are, moreover, of a compact form, and his force more readily collected, muſt always be ſubject to have its diſtant provinces cut off from its aſſiſtance: or if it divides its force, for their ſeparate defence, the ſafety of the whole will be endangered.

The Carnatic anciently compriſed all that part of the peninſula that lies ſouth of the Gondegama and Tungebadra rivers, from the coaſt of Coromandel eaſtward, to the Gaut mountains weſtward, and was divided into *Balla-Gaut* and *Payen-Gaut*, or the upper and lower Gauts *; the former being the weſtern part, and containing the diſtricts which now compoſe the country of Tippoo; and the latter, the eaſtern part, or the Carnatic according to its preſent definition.

The revenue of the Nabob is ſtated at about a million and a half ſterling, annum: out of which, he pays a ſubſidy of 160,000l. to the Eaſt India Company towards the expence of their military eſtabliſhment. The evils attendant on the improvident conduct of the Nabob, were ſeverely felt, during the late war, and ought to be cautiouſly guarded againſt, in future.

The Britiſh poſſeſſions in the Carnatic are confined, chiefly, to the tract called the Jaghire, which extends along the coaſt, about 108 B. miles, and 47 inland, in the wideſt part. Its revenue is reckoned 150,000l. Beſides the Jaghire, there are lands dependant on Cuddalore, but the amount is not conſiderable. The whole

* See the term *Gaut*, explained in page cxxviii.

amount

amount of the land revenue dependant on Madras, including the circars, has been ſtated, in page cxiv, at 725,000l. per annum.

The dominions of Tippoo Sultan, who ſtyles himſelf Regent of Myſore, begin on the weſt of the ridge of mountains beyond Dalmacherry, Sautgud, and Attore; and extend ſouthward to Travancore and Madura; northward to Soonda and Viſiapour (inveloping Adoni, the territory of the late Bazalet Jung) north-eaſtward to Guntoor and Ongole; and weſtward to the ſea. They comprehend, generally, the provinces of Myſore, Bednore, Coimbettore, Canara and Dindigul; beſides his late father's conqueſts to the northward, which are Meritch, or Meritz, Soonda, Chitteldroog, Harponelly, Sanore-Bancapour, Roydroog, Gooty, Condanore, Canoul, and Cuddapah.

Tippoo's preſent territory exceeds very conſiderably, both in extent and revenue, that of his rival the Nabob of Arcot: but probably it will, for ſome time at leaſt, require a Prince of conſiderable talents, to prevent a ſtate, compoſed of ſuch diſcordant parts, from falling to pieces. A deſcendant of the Hindoo King of Myſore, whom Hyder dethroned, is living; and kept a ſtate priſoner at Seringapatam, Tippoo's capital. He is occaſionally ſhewn to the populace: and the circumſtance of his being permitted to live, is a ſtrong proof how much the popular prejudices prevail, in favour of the family of their ancient Kings. It was part of the plan of operations of the ſouthern army, under Colonel Fullarton, in 1783, to march from Coimbettore to Seringapatam, in order to liberate this Prince, and encourage the people of Myſore to throw off their allegiance from Tippoo: and it was the opinion of many ſober perſons that it might have ſucceeded, if circumſtances had permitted Col. Fullarton to undertake it. The general character of Tippoo, is that of a man of high ambition; with great abilities for war and finance; cruel, to an extreme degree; and obſtinately attached to his

his ſchemes. He is unqueſtionably, the moſt powerful of all the native Princes of Hindooſtan; but the utter deteſtation in which he is held by his own ſubjects, renders it improbable that his reign will be long. His dominions are very extenſive; and although the imperfect ſtate of the geography of the weſtern part of the peninſula, does not permit me to mark their northern boundary, yet it is pretty certain that it touches the river Kiſtnah, on the ſouth of the city of Viſiapour: and therefore, the extent of Tippoo's territory, or kingdom, from the valley of Ootampaliam on the ſouth, to the Kiſtnah on the north (or rather N N W) cannot be leſs than 550 Britiſh miles. In breadth, it is very unequal: in the wideſt place, that is, in the northern part of the peninſula, the breadth is at leaſt 330 miles; but leſs than 150 in the parallel of Tritchinopoly; and further ſouthward, it ends in a point. In page xcvi, its area has been compared to that of Great Britain; which is taken at 96,400 ſquare Britiſh miles: and the country of Tippoo is ſuppoſed to contain 21 ſquare degrees; which in the parallel of 14°, produce about 97,650 B. miles. By the peace of 1782, Hyder was to relinquiſh all, but his *ancient poſſeſſions*: how far his ſucceſſor has fulfilled the terms of the treaty, I am not informed: but the term, *ancient poſſeſſions*, was too general, or rather too vague, to be underſtood in any particular ſenſe.

The revenue of Tippoo, has been ſtated at four crores of rupees, or as many millions ſterling. His military eſtabliſhment is very great; being no leſs than 72,800 regulars, including 740 Europeans under the command of French officers: beſide troops in the frontier garriſons, to the amount of 49,000. The remainder of his force, conſiſts of irregulars of various deſcriptions, and amounts to 33,000 and upwards: ſo that the whole force of Tippoo, is reckoned 155,000; of which, near 73,000, are of a claſs much ſuperior to any troops that have ever been raiſed and diſciplined by

t a native

a native of India *. His desire of extending his kingdom, will keep him at perpetual variance with the Poonah Mahrattas, or the Nizam, or both; as it is only on their side, that any acquisitions can be made, without quarreling with the English. Hyder long meditated the conquest of the Travancore territory, situated at the extreme of the peninsula; but was prevented by the English. Tippoo, is said to have intentions of the same kind. The reader may easily collect, from a cursory view of the map, how hurtful to the interest of the Carnatic, such a revolution would prove: since it implies also the transfer of the Cochin territories, and all the tract lying on the west of the Gauts.

* I have been favoured with the following particulars, relating to Tippoo Sultan's military establishment; and which may be depended on.

Regulars.		
Cavalry - - - - - -		27,400
Sepoy Infantry, Hindoos and Mahomedans - - -		36,000
Topasses (or Hatmen) that is, the descendants of Portuguese and other Europeans, Infantry - - -		7,300
Europeans, Cavalry -	200	
——— Foot - -	540	
- - -		740
Artillery Corps, consisting of Europeans, Topasses, &c. - -		1,390
		72,830

Guns attached to the Battallions -	110	
Garrisons on the Frontiers. Horse -		21,000
Foot -		28,000
		49,000

Irregulars, armed in various ways	7,000
Auxiliaries from the Rajahs of Rydroog, Darwar, Harponelly, Sanore, &c.	
Horse -	10,300
Peons (Irregulars)	13,000
	26,300

Recapitulation.

Regulars - -	72,830
Garrisons - -	49000
Irregulars - -	7,000
Auxiliaries - -	26,300
Total -	155,130

CHRO-

Chronological Table of Emperors, who have reigned in Hindoostan, ſince the Ghiznian Conquest.

Ghiznian Emperors.

	Began his Reign A.D.
* Mahmood I.	1000
Mahomed I. Muſaood I.	1028
Modood	1041
Muſaood II. Ali	1051
Reſchid Feroch-Zaad	1052
Ibrahim I.	1056
Muſaood III.	1098
Arſilla	1115
Byram I.	1118
Chuſero I.	1152
Chuſero II.	1159

Ghorian or Gaurian Emperor.

Mahomed II, or Mahomed Ghori	1184

Patan or Afghan Emperors.

Cuttub	1205
Eldoze Aram Altumſh or Iltumſh	1210
Feroſe I.	1235
Sultana Rizia, Empreſs	1236
Byram II.	1239
Muſaood IV.	1242
Mahmood II.	1245
Balin	1265
Keikobad	1286
Feroſe II.	1289
Alla I.	1295
Omar	1316
Mubarick I.	1317
Tuglick	1321
Mahomed III.	1325
Feroſe III.	1351
Tuglick II.	1388

	Began his Reign A.D.
Mahomed IV. Abu-Bicker	1389
† Mahmood III.	1393

Dynaſty of the Seids.

Chizer	1414
Mubarick II.	1421
Mahomed V.	1433
Alla II.	1447

Dynaſty of Lodi.

Beloli	1450
Secunder I.	1488
Ibrahim II.	1516

Mogul or Mungul Emperors.

Baber	1525
Humaioon	1530

Second Patan Dynaſty.

Shere	1542
Selim	1545
Mahomed VI. Ibrahim III.	1552

Mogul Dynaſty reſtored.

Humaioon	1554
Acbar	1555
Jehanguire	1605
Shah Jehan	1628
Aurungzebe, or Allumguire I.	1659
Bahader Shah	1707
Jehaunder Shah	1712
Ferokſere	1713
Ruffieh-ul-Dirjat Ruffieh-ul-Dowlah	1717
‡ Mahomed Shah	1718
Ahmed Shah	1748
Allumguire II.	1753
Shah Aulum	1760

* He began his reign in Ghizni, A. D. 977.
† Tamerlane's Invaſion happened in this reign;
‡ And Nadir Shah's in this reign.

MEMOIR

OF A

MAP OF HINDOOSTAN, &c.

MEMOIR

OF A

MAP OF HINDOOSTAN, &c.

SO great an extent of country is contained in this map, and the quality of the materials is ſo various in different parts, that it became neceſſary, in order to prevent confuſion, to divide the account of its conſtruction into ſeparate ſections, agreeable to the natural diviſion of the country; and, in ſome meaſure, to the nature of the materials. It is accordingly divided into ſeven ſections:

The firſt contains the ſea coaſts and iſlands.

The ſecond, the ſurveyed tract on the ſide of Bengal; or that occupied by the Ganges and its principal branches, as far weſt as the city of Agra.

The third, the tract occupied by the Indus and its branches.

The fourth contains the tract between the Kiſtna river and the countries traverſed by the Ganges and Indus; that is to ſay, the middle parts of India.

The fifth contains the peninſula ſouth of the Kiſtna.

The ſixth, the countries ſituated between Hindooſtan and China; namely, Thibet, Bootan, Aſſam, Pegu, Aracan, Ava, and part of Siam: and

The ſeventh, and laſt, contains Tables of diſtances between the principal cities, &c.

But, before I proceed to the particulars of the conſtruction of the map, it will be neceſſary to explain the itinerary meaſure adopted

in places where no ſurveys have been taken. The uſual meaſure of this kind in Hindooſtan, is the *coſs*, or *crores*, commonly eſtimated at two Britiſh ſtatute miles. I have not been able to get the true length of the coſs, as fixed by Acbar, and other Emperors; and, even if I had, it would be of no uſe in the preſent enquiry, as all my Hindooſtanny itineraries and tables are in computed coſſes.

It may reaſonably be expected, that in a country of half the extent of Europe, the eſtimated length of the itinerary meaſures, although of the ſame denomination, muſt vary in different parts of it. It is no more than what happens in different provinces of the ſame kingdom, in Europe. But as far as we have any *data* for making a juſt compariſon, the coſs does not vary ſo much as one-ſixth part over the whole country; and between the northern and ſouthern extreme of India, (that is, in an extent of about 1700 miles) the difference is not more than one-ſixteenth part. The miles vary much more in their proportions, in the different parts of Europe.

Taking the medium of the coſs throughout Hindooſtan, and the Deccan, there will be about 40 of them to a degree of a great circle on the globe: that is, each coſs is about a geographical mile and half. But this is to be underſtood of horizontal meaſure; in which the windings and inflections of the roads are allowed: for the eſtimated routes could not be applied to geographical purpoſes, by any other rule. The coſs, in road meaſure, is about one ſtatute mile and nine-tenths; or at the rate of 190 Britiſh miles to 100 coſſes; one part in ſeven, being allowed for winding, when the line of diſtance is extenſive. Or, ſeven miles of road meaſure, are allowed to produce ſix miles horizontally, or in a direct line.

In Malwa and its neighbourhood, the coſſes are larger than any where elſe, and are about 1,7 geographical miles, or 35 to a degree. And on the road from Baglana to Maſulipatam, they are ſo ſhort, that 46 are required to make a degree. But having only one example for the latter proportion, I ſhall found no rule on it. The proportions that I have adopted for Hindooſtan, Malwa, and the Carnatic,

Carnatic, from a great number of examples, are reſpectively 1,43; 1,71; and 1,6 of geographical miles to a horizontal coſs; or 42, 35, and 37½ to a degree of a great circle. The coſs of Hindooſtan proper, is therefore ſhorter than any other, and prevails throughout the greateſt extent of country. There is again in Nagpour (the ancient Goondwaneh) a *Goondy* coſs, which by the medium of all the accounts I could get, is about 2,76 geographical miles, reduced to horizontal diſtance; or 21,9, or 22 to a degree. This meaſure appears to be in uſe by the natives, throughout Mundilla and Boggilcund, as well as in Nagpour; and ſometimes occaſions great confuſion in the reports of the *coſſids,* or couriers: however, they have a computation of Hindooſtanny coſſes alſo, in the ſame country; and the proportions agree in general remarkably well with that ſcale, between the Bengal Provinces and Aurungabad; and between Mundilla and Hydrabad.

Having mentioned the windings of the roads, it may not be improper to give the reſult of my enquiries on this head, for the benefit of thoſe who may have itineraries, kept in eſtimated diſtances, to work up. One in ſeven is allowed as above: and is what will be found to take place in large diſtances, in ſuch countries as are interſected by deep rivers, or watercourſes: or in ſuch as have no artificial roads; and where thoſe on the natural level, have obſtacles to ſurmount. The degree of winding of roads, in different countries, is, *(cæteris paribus)* according to the ſtate of improvement, in which the roads are. In India, the roads are at beſt, little better than paths, and whenever deep rivers, (which in that country are frequent, and without bridges) moraſſes, chains of mountains, or other obſtacles, oppoſe themſelves to the line of direction of the road, it is carried round, ſo as to effect the eaſieſt paſſage; and for this reaſon the roads there, have a degree of crookedneſs, much beyond what we meet with in European countries, where bridges are laid over every conſiderable watercourſe, and where hills are either levelled, or reduced to a convenient degree of acclivity; and after

all,

all, expences ſaved in many caſes, by the difference of labour between the ſmoothing of the direct road, and the forming of a road on the natural level. But the proportions, muſt of courſe vary with circumſtances; and may be only one in ten, in a dry, open, country, and one that has a tolerably even ſurface: but this happens too rarely to found any general rule on. As the line of diſtance increaſes, a greater degree of winding will take place; or, a ſhort diſtance will always be on a ſtraighter line than a long one: for in countries where the management of the roads is not arrived at a high degree of perfection, the road through a kingdom will be made up of portions, conſiſting of the particular roads leading from one city, or principal town, to another, although they may not lie in the general line of direction; and then there will be a general winding, added to the particular one: and the above proportion of 1 in 7, is applied to this compound winding. And, added to this, in very long diſtances, ſome natural obſtacle, will, very probably, oppoſe itſelf: an arm of the ſea; a river of difficult paſſage; a moraſs; or an impaſſable ridge of mountains; and change totally the direction of the road: whilſt the parts, on each ſide of the obſtacle, might have but an ordinary degree of winding: and it is ſeldom, but that one or other of theſe, occurs in the ſpace of 100, or 150 miles. Probably 1 in 8 * may be a pretty juſt general proportion for diſtances of about a 100 miles: that is, 8 miles by the road, will be ſeven direct; or what is commonly termed *bird-flight:* and where the extent is from 200 to 300 miles, 1 in 7.

Meaſured diſtances in Hindooſtan, do not often occur, where, at the ſame time, the true horizontal diſtance is given, except in Bengal: and that is a country too full of deep rivers, lakes, and moraſſes, to ſerve as a general ſtandard. In the Carnatic, a dryer country, the medium of winding, in diſtances of about 100 miles, is 1 in 9. In England, as far as we can truſt the maps (which may

* This is M. D'Anville's idea, p. 45 and 46 of his Conſidérations Géographiques.

5 be

be done, where the diſtance conſiſts chiefly of *difference of latitude)* 1 in 11 is the proportion, in diſtances of about 100 miles; and in very great diſtances, ſuch as Edinburgh, 1 in 7.

It may happen that the direct route may lie through a deſert or an ill-governed country; in which caſe, travellers will avoid the way, in which famine, or robbery, threatens them, and by theſe means be carried out of the true line of direction: but it is obvious that no rule can be given for ſuch caſes. Upon the whole, the degree of winding, as far as depends on natural cauſes, muſt be eſtimated by the compound ratio of the length of the line of diſtance, and of the nature of the country, as to evenneſs, dryneſs, and openneſs. And of courſe, ſome local knowledge of it will be required, in order to correct the diſtances in a juſt degree *.

The term coſs is of high antiquity; and that of coſſid, or courier, appears to be derived from it. It ſeems that the meaſure of the coſs, eſtabliſhed by the different Emperors of Hindooſtan, has varied conſiderably at different times; and has always been longer than the computed one. That fixed by Acbar appears to have been about 2 Britiſh miles, and a ſixteenth. But of this, I have no farther proof, than what reſults from the compariſon of the different meaſures of the road between Patna and Moorſhedabad; being a portion of the great road from Delhi to Bengal, meaſured by order of one of the Emperors.

M. D'Anville concludes his enquiry † into the length of the coſs, by determining the number in a degree, on a medium, to be 37; but it muſt be obſerved, that he had no meaſured lines with which he could compare his eſtimated diſtances. On the other hand, in the reſpective diſtances of Candahar, Cabul, and Attock, as deſcribed by him, each degree contains 47 of Tavernier's coſſes.

* Thoſe who wiſh for a general rule for changing horizontal diſtance into road diſtance, in their common references to maps; may break the line of diſtance, (if very long) into portions of not more than 100 or 150 miles; and then add to the whole ſum of the diſtances, ſo obtained, one eighth part. Theſe portions ſhould be contrived, ſo as ſeverally to include the ſpaces, between the points, that diverge moſt from the general line of direction of the whole road. By this means, the errors ariſing from the compound winding, will be avoided.

† Eclairciſſemens, p. 14.

SECT.

SECTION I.

The SEA COASTS *and* ISLANDS.

CALCUTTA is the point I ſhall ſet out from, as well from its being determined by ſeveral obſervations of longitude and latitude, as from its having a meaſured line of conſiderable extent ſtretching from it both to the eaſt and weſt. I ſhall firſt purſue the route weſtward to the mouth of the Indus; and then return to Balaſore, and go eaſtward to the entrance of the ſtrait of Malacca.

Calcutta, the capital of the Britiſh poſſeſſions in India, as being the reſidence of the General Council, has its citadel placed in latitude 22° 33′ north; and in longitude, by a medium of the obſervations of four different gentlemen, 88° 28′ eaſt from Greenwich *.

Balaſore, ſituated about 101 geographical miles † from Calcutta, is the extreme point of the Bengal ſurvey on the S W; or on the quarter towards Madras. Col. Pearſe's return from the Carnatic, after the termination of the late war, afforded an opportunity of carrying a meaſured line from Madras to Balaſore, which had long been a *deſideratum*; as the exact poſitions of the intermediate ſtations of Maſulipatam, Viſagapatam, Ganjam, and Cattack, points on which many others eventually depended, were wanted: and although there might be no great reaſon to ſuppoſe that Maſulipatam and

* All the latitudes mentioned in this work, being north of the Equator, and all the longitudes eaſt of the meridian of Greenwich, I ſhall in future mention only the terms latitude and longitude, leaving the ſpecies of each, to be underſtood,

† I have made uſe of Geographic miles, or thoſe of 60 to a degree, in the account of the conſtruction of the map; and of Britiſh ſtatute miles in giving the comparative extent of countries. They are diſtinguiſhed by G. miles, and B. miles.

Viſa-

Viſagapatam were much out of place, in the former map, yet Ganjam and Cattack were doubtful. Col. Pearſe's induſtry and attention have amply ſupplied what was wanting, within this line. He directed the whole to be meaſured with a perambulator, and corrected each day's work, or at leaſt, every conſiderable interval, by obſervations of the latitude; and the general courſe being little more than 3 points from the meridian, the differences of latitude, were applicable to the correction of the diſtance thro' each particular interval: and for a check on the whole, we had already in our poſſeſſion, obſervations of longitude repeatedly taken at Calcutta and Madras. The whole extent of Col. Pearſe's meaſured line, in road diſtance, was near 900 Britiſh miles; a work of no ſmall labour.

The longitude of Fort William, the citadel of Calcutta, as aboveſaid, taken at 88° 27′ 45″ *, from the medium of 4 obſervers; and that of Madras 80° 24′ 40″ †, from the medium of 3 obſervers, gives a difference of meridians of 8 degrees, 3 minutes. It remains then, to compare with this, the difference of longitude found by Col. Pearſe's meaſured route, as communicated by Mr. Pringle in the map drawn by him, and ſent to the Eaſt India Houſe.

Balaſore, by the ſurvey, is 1° 26′ 30″ weſt of Fort William, and muſt therefore be in 87° 1′ 30″. Col. Pearſe reckons it 1′ 15″ more weſterly; but I adhere to the ſurvey. From Balaſore to Ganjam, in lat. 19° 22′, Col. Pearſe reckons 95 miles of weſting, or 1° 41′ 26″ difference of longitude; which brings Ganjam in lon. 85° 20′ 4″ ‡. And from Ganjam to Madras he made 5° 2′ 18″ weſt: whence the

* Hon. Thomas Howe - 88° 33′
Rev. Mr. Smith - - 88 28
Mr. Magee - - - 88 24
Capt. Ritchie - - 88 26 } Medium 88° 27′ 45″

To which may be added the French obſervation at Ghyretty, which place is 1′ eaſt from Calcutta - - - - - 88 29

† Mr. Howe - - - 80° 29′
Mr. Dalrymple - - 80 24
Mr. Topping - - 80 21 } Medium 80° 24′ 40″

‡ Mr. Mears's obſervation was 85° 17′ by ☉ and ☽, 1770.

longitude of Madras, would be 80° 17′ 44″. Here is found an excess of about 7 minutes difference of longitude, more than the observations give. But in examining the map abovementioned, it appears that the difference of latitude between Ganjam and Madras by account, exceeded that by observation 8′ 30″; and if this is to be imputed to excess of distance (which is highly probable) an excess of longitude must also have taken place; and this error will amount to about 6′ 48″; or nearly the difference in question. This trifling error of 7 minutes in a difference of meridians of 6 degrees and a half, to whatever it may be owing; whether to overmeasurement by the wheel; variation of the compass; defects in the instruments; or errors in the observations of longitude; or partly to all these causes; is very immaterial, to general geography. The result shews, that we may consider the difference of meridians between the two places, as determined near enough for the purposes of navigation, or general Geography.

I must not omit to mention that Capt. John Ritchie, by direction of the Bengal Government, in 1770 and 1771, took the bearings and distances in a general way, from Madras to Balasore; and his result came within one minute of the longitude by observation. But some of his intervals were not well proportioned. His position of Masulipatam, indeed came out only 1′ to the east of Col. Pearse's; but Visagapatam was 7′, and Ganjam 22′ more westerly.

Although Col. Pearse's route serves to fix most of the principal places, on or near the coast, yet oftentimes it deviated considerably, and for a length of space, from the coast; as between Balasore and Jagarnaut; and between Visagapatam and Ongole. These blanks are supplied from the materials of Capt. Ritchie, Major Stevens, Major Polier, Mr. Cotsford, and others.

First, from Balasore, to Point Palmiras. This was done by Capt. Ritchie, by a series of triangles, formed by three surveying vessels; and corrected by observations of latitude. The result, placed Point Palmiras, directly south of Balasore: that is, in lon.

87°

87° 1′ 30″; lat. 20° 44′. From Point Palmiras to Jagarnaut Pagoda, the coaſt was traced in a more curſory manner; and accordingly, the bearing and diſtance between Balaſore and Jagarnaut is very differently given by Col. Pearſe and Capt. Ritchie: the account of the former being only 54′ 30″ difference of longitude; and that of the latter, 1° 16′. This very conſiderable difference is too ſtriking, not to be particularly noticed; and requires that ſome obſervations ſhould be made with time-keepers, to aſcertain the relative poſitions of Jagarnaut, Point Palmiras, and Balaſore. Wherever the miſtake may lie, it is of great importance to have it rectified: for if Col. Pearſe's bearing be true (and there appears no reaſon to doubt it) there muſt be a very conſiderable error in the courſe between Jagarnaut, and Balaſore road, in Capt. Ritchie's chart.

The longitude of Cattack is ſcarcely altered from what it was in the former map of India; where it was placed on the authority of Capt. Campbell, in lon. 86°. It is now in 86° 1′ 30″; and its latitude ſtands as before.

From Jagarnaut to Ganjam, the particulars of the coaſt, are from Col. Pearſe's map, collated with thoſe of Ritchie's and Campbell's. From Ganjam to Poondy, is taken from the map of the Itchapour diſtrict; and Col. Pearſe's route on it, which may be traced from Ganjam to Bindi (near Poondy) furniſhes the means of correcting the compaſs of that map, which was faulty in a very conſiderable degree. Bindi ſerves as a connecting point for the two maps; as Nauparah or Nowparah, a little farther to the S W. does for Pearſe's, and Cridland's map of the Tickley diſtrict. The coaſt between Poondy and Bimlepatam is ſketched from Lieut. Cridland's map, from Major Polier's journal, and other MSS. From Bimlepatam to Viſagapatam is from Col. Pearſe; and from thence to Coringa from a MS. map, compiled during Col. Forde's expedition to Maſulipatam, in 1759; collated with Capt. Ritchie's map.

As

As there have been ſome obſervations taken at Viſagapatam to aſcertain the longitude, it is proper to take notice of them, and to compare the reſult with the longitude deduced from Calcutta and Ganjam, by Col. Pearſe's line. This gives 107,1 miles of weſting, or 1° 52′ 54″ difference of longitude, from Ganjam to Viſagapatam; from which if we deduct the proportion of the error in the diſtance (ſee page 10) the true difference of longitude will be 1° 50′ 39″; which taken from 85° 20′ 4″, the longitude of Ganjam, leaves 83° 29′ 25″ for that of Viſagapatam. But Col. Pearſe's obſervation was 84° 23′ 30″ and Mr. Ruſſel's 83° 21′ 30″. Its latitude is 17° 42′.

From Coringa to Maſulipatam, the figure of the coaſt is from Major Stevens, as Col. Pearſe's route goes far inland, by way of Rajamundry, Ellore, &c. and does not again approach the coaſt near enough to determine its poſition, till it comes to Vantipollam, near Ongole. Theſe maps of Major Stevens's and of Col. Pearſe's join at the points of Siccacollum, on the bank of the Kiſtnah; at Rajamundry, and at Samulcota. Theſe 2 maps differ conſiderably in the extent between Siccacollum and Samulcota; Major Steven's giving 6¾ miles leſs than the other (error of diſtance allowed) but, I believe, Major Stevens's diſtance was meaſured, only between Siccacollum and Narſapour.

Maſulipatam has its poſition very ſatisfactorily determined, by Major Stevens's meaſurement from Siccacollum, a place in Col. Pearſe's map. It is 17,4 G. miles eaſt; and 3,3 ſouth of it; and comes out 48′ of longitude, eaſt of Madras, or corrected (ſee again page 10) 47′; its longitude being 81° 12′; lat. 16° 8′ 30″.

From Maſulipatam to Madras, the figure of the coaſt, is generally from Capt. Ritchie, corrected in certain points by the land ſurvey, of Col. Pearſe. For as the latter came cloſe to the coaſt at Vantipollam, Carwaree, and Rameeapatam, it appeared that Capt. Ritchie's chart required correction in the great bay between the latter place and Point Divy. I found it neceſſary alſo to reduce the

the point at the mouth of the Pennar river, and make it leſs prominent; as the diſtance from Nellore to the neareſt ſea coaſt, would otherwiſe have been much too great *. Indeed, it was not expected that a veſſel, ſailing along a flat, ſtraight coaſt, without land-marks, could aſcertain every ſmall bending of the coaſt.

It is proper to remark, that the whole difference of longitude between Calcutta and Madras, in M. D'Anville's and D'Apres' maps, comes within a few miles of the truth, as they were in poſſeſſion of the obſervations taken at Ghyretty and Pondicherry: but their maps are exceeding faulty in the detail.

The longitude of Madras, or Fort St. George, as was ſaid before, (page 9) is taken at 80° 25′; and its latitude is 13° 5′. Pondicherry, by a ſeries of triangles obtained by means of the Jaghire map, Wandiwaſh Hill, Permacoil, the red hills, and the difference of latitude, I make to be 25′ of longitude, weſt of Madras; ſo that Pondicherry will be in 80° juſt. The medium of the different obſervations taken there, is 79° 55′ 40″ †. Mr. Pringle, who meaſured the routes of Sir Eyre Coote's army, during the late war, makes the difference of meridians the ſame as I do, to a fraction. Its latitude is 11° 56′.

Cuddalore, in lat. 11° 41′, and lon. 79° 45′ 45″, is the moſt ſouthern point, determined by Mr. Pringle's meaſured routes: but the ſame gentleman furniſhes us, with the bearing of Portonovo from that place; which, with its latitude 11° 30′, allows us to place it, almoſt to a certainty, in lon. 79° 53′ 30″.

The poſition of Chillumbrum Pagoda, in reſpect of Portonovo, although ſo conſpicuous an object to the ſight, is variouſly repreſented. By the medium of what appeared to me to be the beſt authorities, I have placed them South-weſt 7½ G. miles from Portonovo.

* I have allowed Point Pennar to be 16 G. miles to the eaſt of Nellore: moſt of the MS. maps make it leſs.

†			
Con. de Temps	79° 57′		Medium 79° 55′ 40″
Gentil	79 53		
Topping	79 57		

tonovo. Mr. Barker determined their poſition with reſpect to Devicotta, by a meaſured baſe, to be W. 16° 45′ N. 8 G. miles; which added to the former line from Portonovo, gives 79° 55′ for the longitude of Devicotta. Its latitude appears to be 11° 21′. Moſt maps allow a much greater diſtance between Portonovo and Devicotta, than what ariſes from the above conſtruction; which is 9 G. miles on a S S E. bearing: and the foundation of the error, appears to me to be the giving the bearing of Devicotta from Chillambrum, too great a degree of ſouthing.

From Devicotta, ſouthward to Negapatam, my authorities are ſome MS. maps; among which, is one, drawn by M. D'Anville, containing the principal poſitions between Madras and Tanjore; and ſeems intended for the baſis of a map of the ſouth Carnatic. Had M. D'Anville's differed from the others, I ſhould have been inclined to give the preference to the reſult of his inveſtigations; but it happens that all the different maps I have conſulted, differ ſo little among themſelves, that none make the difference of longitude between Devicotta and Negapatam more than 1′ 45″; and the medium of the whole is 1′ 15″ eaſt; ſo that Negapatam may be taken at 79° 56′ 35″ lon.; and latitude 10° 46′.

Thus Negapatam appears to be 3′ 25″ weſt of Pondicherry, or 28′ 25″ from Madras; and whatever error there may be, muſt ariſe chiefly between Devicotta and Negapatam. If there be any, the different geographers and map-makers have all fallen into the ſame kind of error. I obſerve that the different maps made of late years, in India, have conſidered Negapatam as being in lon. 79° 53′ to 79° 54′. I know not whence the idea is taken; but, whether founded or not, it differs but little from mine.

Negapatam is the ſouthmoſt point, on the eaſtern ſide of the peninſula, whoſe poſition can be reckoned tolerably exact; unleſs we except Point Calymere, whoſe bearing being pretty well known from Negapatam, and its latitude determined with preciſion; may be conſidered as being nearly as well aſcertained as

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Negapatam, on which it depends. Its latitude is 10° 20′; and longitude 79° 54′ 30″.

No connected measured line that can be depended on, has yet been carried across the peninsula; Col. Fullarton's marches, measured by Col. Kelly, extending only to Palicaudchery; that is, not within 50 G. miles of the coast of Malabar: and those extended southward, through Madura and Tinevelly, ending at Cape Comorin. Fortunately, however, we have a series of longitudes by a time-keeper, deduced from Bombay, by Capt. Huddart, and extended at intervals, along the whole coast, to Anjenga; of which, more will be said hereafter.

Col. Fullarton's march into the southern countries of the Carnatic, gave an opportunity of measuring the distances, and ascertaining the relative positions of Tanjore, Tritchinopoly, Madura, Coïmbettore, Palicaudcherry, &c. in respect of Negapatam, where the march commenced. The plan of these marches communicated to me from the East India House, bears the name of Col. Kelly; and is declared to be actually measured, through the points abovementioned. We have to regret that the same attention was not bestowed in the march from Calicut to Palicaudcherry; the intended point of junction of the Bombay detachment, with that of Col. Fullarton: for, in that case, the exact width of the peninsula, had been no longer a matter of enquiry.

Tritchinopoly comes out, by the above map of Col. Kelly's, to be 1° 10′ of longitude west from Negapatam; which taken from 75° 56′ 35″, leaves 78° 46′ 35″ for the longitude of Tritchinopoly *. The latitude is 10° 49′.

Madura, by the same authority, is 34′ difference of longitude west from Tritchinopoly; that is, in lon. 78° 12′ 35″. Here it must be noted, that great discordance arises between the different

* A map, drawn by Baron Wesebe (of the Hanoverian corps) accords in this particular, and indeed, in every other material one, with that of Col. Kelly: but I have no knowledge how Baron W. procured his materials.

5 accounts

accounts of the bearing and diſtance between Tritchinopoly and Madura, as given by Kelly, Montreſor, and others. The two former differ 1,6 G. miles only, in diſtance; but Col. Kelly's bearing, gives 12,3 G. miles, more of weſting, than Montreſor's. And a third map, communicated by Mr. John Sulivan, has the ſame bearing with Kelly's, but exceeds it, 3,7 G. miles, in diſtance; thereby, increaſing the weſting 1,3 G. miles; and of courſe, exceeding Montreſor's 13,6 G. miles, or $14' 15''$ of longitude.

The latitude of Madura, I have not yet learnt. Col. Call's map places it in $9^{\circ} 52' 30''$; and Col. Kelly's difference of latitude from Tritchinopoly, $53' 12''$, gives $9^{\circ} 55' 48''$.

The authority for the remainder of this line, through Palamcotta (or Tinevelly) to Poolytopu on the ſea coaſt, weſtward of Cape Comorin, is from the map of Madura and Tinevelly, made under the direction of Col. Call (then Chief Engineer at Madras) and from Mr. Pringle's road diſtances; together with the latitudes of Palamcotta and Poolytopu. Firſt, I find in Col. Call's map, $1^{\circ} 9' 30''$ difference of latitude S. between Madura and Palamcotta; and $18'$ of longitude, weſt. This would place the latter in $8^{\circ} 43'$ (Mr. Pringle informs us, that its latitude is $8^{\circ} 44'$) and in lon. $77^{\circ} 54' 35''$. Then, from Palamcotta to Cotate or Cotaur, on the weſt of the Gauts, Mr. Call's map gives $29' 12''$ difference of latitude S.; and $22'$ difference of longitude weſt; to which, if we add the deduction from Mr. Pringle's meaſured diſtance to Poolytopu, $5' 30''$ difference of latitude S.; and $6'$ difference of longitude weſt *; the whole difference of latitude will be $34' 42''$ S. and difference of longitude $28'$ weſt; giving for the poſition of Poolytopu, lat. $8^{\circ} 9' 18''$; lon. $77^{\circ} 26' 35''$.

Poolytopu village appears to be ſituated on the ſea coaſt, E N E. 4 G. miles from Cadiapatam Point; which point, by Mr. Howe,

* The bearing between Cotate and Poolytopu, is inferred from ſome MS. maps of no great authority, to be about SW ½ W. The whole diſtance being only 8 G. miles, the difference of longitude would be but little affected, by any error that might reaſonably be expected in the bearing.

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is reckoned in lat. 8° 7′; and Poolytopu being about 1′ 30″ to the N. of it, ſhould be in 8° 8′ 30″, according very nearly with the above calculation. It muſt, I think, be acknowledged, that there is nothing in this deduction, that appears forced. Poolytopu, by the beſt account I can get, (a French MS. map in Mr. Dalrymple's collection) is 16′ of longitude weſt of Cape Comorin; which Cape, by this account will be in lon. 77° 42′ 35″.

We have ſome further light thrown on this ſubject by the meaſurement of the road, by Mr. Pringle, from Tanjore to Poolytopu. His whole road diſtance is 251½ B. miles; and allowing 1 in 9 * for the winding of the road, the horizontal diſtance will be 223½ B. miles, or 193 G. miles; which, on the ſame bearing as the above deduction is founded on, (S 33° 40′ W) gives difference of latitude 2° 41′ 18″; and weſting 107,4, or difference of longitude 1° 49′. As Tanjore is in 10° 46′ 30″, the latitude of Poolytopu comes out 8° 5′ 12″, and its lon. 77° 23′ 15″ (the longitude of Tanjore, by Col. Kelly's meaſurement, being 79° 12′ 15″, deduced from Negapatam) and 16′ added to it, gives for the longitude of Cape Comorin 77° 39′ 15″, or 3′ 20″ to the weſt of the firſt calculation.

Again, if the proportion of 1 in 8 be adopted for the winding of the road, (a more common one) it produces 190 G. miles † of diſtance; and the latitude of Poolytopu will be 8° 8′; and its lon. 77° 20′ 50″; and that of Cape Comorin 77° 36′ 50″.

This is all the ſatisfaction that I have been able to obtain, concerning the longitude of Cape Comorin, as deduced from the eaſtern ſide of the peninſula. Something depends on the truth of the aſſumption, reſpecting the poſition of Negapatam; and ſtill more on

* The road from Madras to Tritchinopoly had a winding of -	1 in 9	
Tritchinopoly to Velore - -	1 in 10	
Madras to Tanjore - - -	1 in 9⅓	Medium 1 in 8¾
——— Wandiwaſh - -	1 in 8	
——— Carongoly - - -	1 in 9¼	
Arcot to Wandiwaſh - - -	1 in 7	

† The diſtance ariſing on the lines of Kelly and Call is 186,25 G. miles.

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the accuracy of the map of Tinevelly, the hiſtory of which, I am unacquainted with: but, I think, the near coincidence of Mr. Pringle's meaſurement, with it (for I reckon 3′ 20″ but a trifle in general geography) is a preſumptive proof of its general truth. It is underſtood that there is from 1 to 2 degrees of weſterly variation, between Negapatam and Cape Comorin: if this be allowed, it will remove the Cape 4′ 30″ further to the weſt; and place it, according to Kelly's and Call's lines in 77° 38′ 5″.

Let us now turn to the other coaſt, and obſerve how Capt. Huddart's and Capt. Dundas's, deductions of longitude, from the weſt to Anjenga, accord with the reputed ſpace, contained in the interval between Cape Comorin and Anjenga; which ſpace, by Mr. Dalrymple's obſervation of the difference of longitude ſhewn by his time-keeper, in 1777, was 52′ 30″. This, taken from 77° 38′ 5″, leaves 76° 45′ 35″ for the longitude of Anjenga.

Capt. Huddart's longitude of Anjenga, deduced by time-keeper from Bombay, reckoned in 72° 40′ is	-	76°	39′
Capt. Dundas's -	-	76	30
Mr. Dalrymple's -	-	76	38

As Capt. Huddart's ſeries of longitudes commenced at Bombay in lat. 18° 58′, and were continued to Anjenga in lat. 8° 39′, and then back again to Bombay; by which the error of his time-keeper was aſcertained, and which was only as much as amounted to 2¼ minutes of longitude; we have every reaſon to be ſatisfied with this ſeries, as far as reſpects general poſitions: and indeed, geography is greatly indebted to the labours of this gentleman, who has preſented us with the longitudes of 16 places on this coaſt, and by that means given the true general figure of it, which exhibits, to thoſe who have been in the habit of contemplating it, a very different form, from what it ever did before.

I am of opinion that more dependance may be placed on Capt. Huddart's longitude of Anjenga, deduced from Bombay, in the manner abovementioned, than on any other account: but at the ſame

ſame time I have adopted Mr. Howe's obſervation of longitude at Bombay, as it appears the moſt conſiſtent with other accounts. I do not mean by this, to determine on the merits of the different obſervations (of which indeed, I am incapable) but rather becauſe it accords with the obſervation taken at Goa, and with the routes acroſs from Negapatam to Tanore; and, as far as may be judged, with the deduction from Negapatam to Cape Comorin. It is true, that if Montreſor's poſition of Madura is admitted, it will place Cape Comorin 12′ farther eaſtward; and if the variation be not allowed, there will be 4′ 30″ more to be added; in all 16′ 30″, or the full difference between Capt. Howe's, and Capt. Huddart's obſervations; the one being 72° 38′, the other 72° 54′.

It now remains, after this inveſtigation, to be ſhewn, in what manner I have compounded the above differences; that no diſtortion of the intermediate parts ſhould take place. Anjenga, I have placed in 76° 40′, being the medium of all the different accounts, by obſervation; and by deduction from Negapatam. Mr. Dalrymple's difference of lon. 52′ 30″ to Cape Comorin, is then adopted, which places the Cape in 77° 32′ 30″. Madura, is placed in 9° 52′, the latitude, given by Call; and its longitude is determined by Col. Kelly's diſtance from Tritchinopoly, with the addition of 3 miles to it; that is, in lon. 78° 11′; and Palamcotta in lat. 8° 42′, and lon. 77° 49′ 15″; according to the proportions furniſhed by Call and Pringle, between Madura and Poolytopu.

The form of the coaſt between Madras and Cape Comorin, is from various authorities. The ſurvey of the Company's lands (or Jaghire) extends beyond Alemparvé. From thence to Negapatam, is from a French MS. map, collated with D'Anville's map of poſitions (above ſpoken of) and ſeveral particulars between Pondicherry and Portonovo, from Mr. Pringle's map of the marches. The mouth of the Coleroone is from an Engliſh MS. map. From Negapatam to Tondi, is chiefly from Major Stevens's, and my own obſervations: from Tondi to Good-water Iſland, Major Stevens's

alone:

alone: from thence to Tutacorin, Capt. Delafield's curſory ſurvey: and the remainder to Cape Comorin, is from Col. Call's map of Tinevelly; corrected occaſionally by a printed chart, publiſhed by Mr. Dalrymple. It is not pretended that any of theſe points beyond Cuddalore, are aſcertained with preciſion: but it is highly probable that Point Calymere cannot be out in its longitude, 4 minutes. Tondi has the bearing and difference of latitude from Point Calymere to correct its poſition; and there was alſo a line drawn from it to Tanjore. Ramanad is fixed by the interſection of two lines, from Madura and Tondi; and therefore muſt partake of the errors incident to Tondi, and Point Calymere. The Point of Ramiſeram is alſo dependant on Tondi. When I conſtructed the map of India, in 1782, I concluded that the reſpective diſtances between Tondi, Tritchinopoly, and Devicotta, had been meaſured, and that I worked on ſure ground: but I have ſince been convinced of the contrary.

From Cape Comorin to Anjenga the particulars of the coaſt, appear to be either little known to us, or very ill deſcribed; as the reports of it are various and contradictory. Between Cape Comorin and Ruttera Point, I took the particulars from a French MS. chart, the ſcale of which appears to be faulty; for it gives only 35 G. miles of diſtance between Cape Comorin and Point Ruttera; and the difference of latitude only 13′ 48″, by which the latter would be in 8° 14′; whereas, it cannot well be under 8° 20′, according to Mr. Howe's obſervation: and Mr. Dalrymple obſerves that Ruttera Point is nearly 29 G. miles from that of Cadiapatam, which is about 19 from Cape Comorin. On theſe ideas, I have extended the diſtance to 46½ miles; and ſtill Ruttera is only 28′ from Cadiapatam. M. D'Apres' account of the bearings and diſtances between Cape Comorin and Anjenga, gives 42′ difference of longitude; but then his chart contradicts that account, and gives 44½; beſides an abſolute diſcordance in particulars. Mr. Pringle meaſured only 49½ B. miles of road diſtance, between Poolytopu and

Anjenga,

Anjenga, which cannot be more than 38 G. miles of horizontal diſtance; and falls ſhort of my expectations, more than 9 miles. All that I could do, was to give the coaſt ſuch a form, as my mind had conceived of it, by peruſing theſe different accounts: at the ſame time, I confeſs, none of them appear concluſive: and until we know the exact poſition of Poolytopu, in reſpect of Cape Comorin, we cannot allow Mr. Pringle's meaſurement, to diſcredit in the leaſt, Mr. Dalrymple's difference of longitude. We may here obſerve, by the way, that coaſts of ſuch rotundity of figure, as the termination of this great peninſula, are ſeldom ſo well determined, as thoſe that embay, and where the ſame point remains long in view, and is of eaſy diſcrimination. Here the projecting points ſucceed each other too rapidly to allow a ſufficient degree of preciſion in calculating either the bearing, or the diſtance. The latitude of Cape Comorin I have taken at 8 degrees.

Coylan or Quilon, a Dutch factory about 14 G. miles to the N N W or N W of Anjenga, is the next place, whoſe longitude is noted by Capt. Huddart; but as it cannot be expected that places differing only a few minutes of longitude from each other, can be determined with preciſion by this means; I ſhall paſs on to Porca, another Dutch factory, in lat. 9° 15′, and longitude by Capt. Huddart 76° 10′. I can by no means reconcile this longitude with the Dutch MS. maps of this coaſt; for as the difference of longitude between Cochin and Porca by Capt. Huddart is only 8′, the bearing ought to be S 10° E; whereas in the map, it is S 25 E. In order not to do too much violence to either report, I have allowed 16′ difference of longitude, inſtead of the 8′ of Capt. Huddart's, and the 10′ of Capt. Dundas. The Dutch MS. in queſtion contains the whole coaſt from Coylan in lat. 8° 51′, to Cranganore in lat. 10° 23′; together with that vaſt aſſemblage of lakes, that extend in ſome places 30 miles inland; and are the repoſitories of the waters that ſpring from the weſt ſide of the Gauts; the whole country hereabouts being very flat, marſhy, and unwholſome. This

MS.

MS. map, which is alſo in Mr. Dalrymple's collection, contains a moſt valuable addition to the geography of this part of the peninſula.

Cochin, the principal ſettlement of the Dutch, on this coaſt, is the next place in Capt. Huddart's table of longitudes: and is reckoned by him, in 76° 2′; lat. 9° 58′. Capt. Dundas makes it 75° 58′; and M. D'Apres, in his new *Neptune Orientale*, 76° 3′.

Capt. Huddart has not noted the longitude of any place between Cochin and Tellicherry, in lat. 11° 48′: and there being only a ſingle obſervation at the latter, I am inclined to paſs over the conſideration of it; and proceed to the next point of obſervation, Mount Dilla (or Delly) where 3 obſervations were taken. Mount Dilla is a remarkable promontory ſituated in lat. 12° 1′; lon. 75° 2′; or 1° weſt of Cochin.

We have two accounts of the bearings of the coaſt between theſe places; the one from M. D'Apres, the other has its particulars from different authorities. Neither of the two, differ eſſentially; and it is neceſſary to examine them carefully, as the reſult is to be uſed in comparing the longitudes of Paniany and Tanore, deduced from Capt. Huddart's obſervations; with that deduced from the marches of the Colonels Fullarton and Humberſtone, acroſs the peninſula.

M. D'Apres account is as follows:

Cochin to Cranganore	N by W	25½ G. miles.
——— Paniany -	N 7° 15′ W	21
——— Calicut -	N N W -	42
——— Mahé -	N W by N	30
——— Mount Dilla	N W -	30

The whole, added together, gives a bearing of N 25° 30′ W, diſtance 144,5 G. miles; on which, the difference of latitude is 2° 10′ 30″, and weſting 10,62. But as the true difference of lati-

tude

tude is only 2° 3′, there is an excefs of 7,5 in northing, and 3,6 in wefting: and the corrected departure, 58,4, gives the fame difference of longitude as fet forth in Capt. Huddart's table.

The fecond feries of bearings and diftances, are thefe:

Cochin to Cranganore (by the Dutch MS. map)	N 12° W	24,9 G. miles.
——— Paniany (by D'Apres)	N 7° 15′ W	21
——— Tanore (by D'Auvergne)	N 20° W	14,7
——— Calicut (by Ditto)	N 19° 15′ W	24,3
——— Mahé (by D'Apres)	N W by N	30
——— Mt. Dilla (by De Funck)	N W by W	28,4

This feries, corrected by the difference of latitude, gives about 2′ of longitude, more than that of D'Apres; a matter hardly worth confidering.

Paniany is much the fame in both accounts; and when corrected in pofition, by the proportion applied as above to D'Apres' feries, will be in lat. 10° 41′ 45″, lon. 75° 55′; or 7′ weft of Cochin. And Tanore, by D'Auvergne's account of its pofition, in refpect of Paniany, will be in lat. 10° 55′, and lon. 75° 49′; or 13′ weft of Cochin.

It may be obferved that De Funck's bearing of Mount Dilla from Mahe is N W by W, while that of D'Apres' is N W, and 1,6 more in diftance. The fact is, that the compafs in De Funck's plan is erroneous, the bearing of Mount Dilla being there W 22° 45′ N. from Mahé; and W 23° 30′ N. from Tellicherry; although the difference of latitude requires it to be almoft a point more northwardly. The true bearing is ftill a *defideratum,* but I have obtained an approximation towards it, by means of bearings taken by two fhips in Tellicherry road. By the medium of thefe, the bearing

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of Mount Dilla from Mahé, appears to be W 33° 15′ N. * or nearly N W by W; and the diſtance on De Funck's plan (which is underſtood to be meaſured) is 28,4 G. miles. This gives 24′ 30″ difference of longitude, or 75° 26′ 30″ for the longitude of Mahé; whoſe latitude is 11° 45′ 18″. And Tellicherry being by the ſame plan 3′ 30″ weſt of Mahé, will be in 75° 23′ lon. and lat. 11° 48′. Capt. Huddart's Table gives only 16′ difference of longitude between Mount Dilla and Tellicherry, although ſtated above to be 21′; but I have before obſerved that theſe ſort of obſervations are more to be depended on, in great differences of longitude than in ſmall ones: not to mention that in the calculation of theſe differences, the actual place of obſervation (that is, on board the ſhip at anchor in a road, or coaſting along ſhore) is often adjuſted to the place whoſe longitude is to be recorded, and which may be ſtyled the nominal place of obſervation; by eſtimated diſtances.

Deducing the longitude back again from Mount Dilla to Tanore, a difference of 2′ muſt of courſe be expected, as the two ſeries of bearings give that difference in the longitude; and Tanore, will of courſe be 75° 51′, or 2′ more eaſterly than the deduction from Cochin in the laſt page.

And now it will be proper to examine how far the lines of bearing and diſtance, drawn by Col. Kelly, and Lieut. D'Auvergne, acroſs the peninſula, in the parallels of Tritchinopoly and Tanore, agree with the reſults drawn from Capt. Huddart's obſervations.

Col. Kelly's ſurvey of Col. Fullarton's march to Palicaudcherry, was, according to the paper accompanying it, in the Eaſt India Houſe, meaſured the whole way. The reſult, according to the map,

* One of theſe bearings was N W $\frac{1}{2}$ W. at $\frac{3}{4}$ of a mile off ſhore: the other, ſaid to be 2′ off ſhore, was N W by W. By reference to a plan of the road, it appears that the latter ſtation could have been only 1′$\frac{1}{4}$ off ſhore, as the depth of water, was no more than 5$\frac{3}{4}$ fathoms. We may obſerve that Mount Dilla ſhould have bore more weſterly from the obſerver that was neareſt the ſhore, than the one fartheſt off: but there is ſeldom much nicety obſerved in taking bearings on ſhipboard, although ſo much depends on it. By calculation, the difference of the angle between an obſerver at $\frac{3}{4}$′ off ſhore, and another at Mahé, would have been 3° 15′; and that at 1 $\frac{1}{4}$ off ſhore, 3° 30′. So that Mount Dilla would bear from Mahé by the firſt compaſs W 36° N.; and by the ſecond, W 30° 30′ N.: the medium of which, is W 33° 15′ N.

map, gives 184,25 G. miles of westing from Negapatam, or 3° 7′ 48″ difference of longitude; placing Palicaud in 76° 48′ 47″; and in lat. 10° 51′; that is, 5′ north of Negapatam. Of the route of Col. Humberstone from Tanore to Palicaud, I have seen no less than 5 different plans; some of them differing 6′ in longitude (that is, in distance) where the whole space did not exceed 57 miles. One alone among these had the author's name to it, and therefore demanded the preference: It was by Lieut. D'Auvergne. I am yet to learn, whether the distance was measured or not; but I should hope and expect it was, or a great part of it; for one of the copies, and which appears to have been transmitted during the march, distinguishes between the measured and estimated parts *; the former seeming to be the part marched over, and the latter, the part the detachment had yet to march. D'Auvergne's plan gives 56¼ G. miles of westing between Tanore and Palicaud, or 58′ 15″ difference of longitude; thereby placing Tanore in lon. 75° 50′ 32″, according to the abovementioned longitude of Palicaud, deduced from Negapatam. The copies of this route, inserted in the maps of Col. Kelly and of Baron Wesebe, give only 50½ G. miles, or 6¼ less of westing than D'Auvergne's. Another map (communicated by Mr. J. Sulivan) and probably in this part, copied from D'Auvergne's, gives 57 miles; and a fifth, transmitted by an Officer in Col. Fullarton's army, precisely the same as D'Auvergne's; that is 56¼.

If we adopt D'Auvergne's distance, the longitude of Tanore, deduced from Negapatam, will be - - 75° 50′ 32″.

Deduced from Capt. Huddart's observations at Mount Dilla - -	75 51
And from the same at Cochin - -	75 49
Medium of all	75 50 10

* It should be a rule observed in all plans, to note how the scale was obtained; whether by actual measurement; difference of latitude; or estimation of distances: to which may be added, that the meridian line or parallel should be drawn across the whole space in the plan, to prevent errors in measuring the angles of bearing.

Scarce

Scarce any diſcuſſion of the ſort could be attended with a more ſatisfactory reſult: and I think it affords the ſtrongeſt preſumptive proofs of the truth of Capt. Howe's obſervations at Bombay; from which, the longitudes ſhewn by Capt. Huddart's time-keeper, are deduced.

With reſpect to my former ideas of the breadth of the peninſula, although the extent in longitude between Bombay and Madras, remains nearly as before; yet by the ſwelling out of the coaſt, on the ſouth of Bombay, I reckoned it too narrow by about 30 G. miles in the parallel of Madras; and 27 in that of Pondicherry.

I have now concluded the diſcuſſion of the longitudes acroſs, and round the ſouthern part of the peninſula; and alſo an account of their application to the map: for a rigid adherence to difference of longitude even by obſervations of the above kind, between places not far removed from each other, would in ſome caſes, diſtort the relative parts of the map beyond probability; and therefore, it was neceſſary, in ſome meaſure, to accommodate the differences, when the exiſting authorities appeared to carry more weight than the obſervations: which, as we have obſerved before, are ſubject to error, even in the application: and they are no leſs ſo, from a caſual variation in the rate of the time-keeper. A ſeries of obſervations, ſuch as we have been conſidering, muſt in a general view, be regarded as deciſive; but it would be hazarding too much to adopt each particular longitude, when it was contrary to every other authority. Much leſs can any abſolute dependance be placed on lines of bearing and diſtance taken from maps, whoſe hiſtory and conſtruction is not before us. And where more authorities than one may occur, and thoſe not agreeing; in ſuch caſes, it muſt be left for the judgment to determine, which appears the moſt probable. Now, although there are ſtrong preſumptive proofs of the general truth of the relative poſitions of the principal points between Cuddalore and Anjenga, yet they do not reſt on the ſame ſolid foundations, as the poſitions in the north part of the peninſula: and therefore,

5 fore,

fore, Cape Comorin is placed more with relation to Anjenga, than to the eaſtern coaſt. Again, the reſpective differences of longitude between Anjenga, Porca, and Cochin, do not well accord with other authorities; and therefore as theſe differences of longitude are very ſmall, I thought the Dutch MS. map, might be better authority for them, than the differences ſhewn by the time-keeper. Another particular is to be noted, concerning the longitudes on the ſouth of the parallels of Cuddalore and Mahé: (viz.) that theſe will be found ſomewhat different in the map from the above account; for when the map was conſtructed, I was not in poſſeſſion of ſome papers which throw an additional light on the ſubject: but theſe differences are very trifling. Some few errors alſo crept into the conſtruction; ſo that upon the whole, this account contains rather what the map ought to be, than what it is: though, poſſibly, the errors I am pointing out may be ſo ſmall, that they would have eſcaped the notice of all but profeſſed geographers.

Tanore and Cochin are both placed 3′ to the eaſtward of the aſſigned longitude (page 23); and Negapatam 1′ to the weſtward of what is given in page 14; by which double error the peninſula is made to be 4′ narrower than was intended, in that parallel. I was ignorant at that time, that there was a plan of Humberſtone's march, which had the author's name to it; and therefore had taken the medium of all the others. We will now reſume the ſubject of the conſtruction.

The latitude of Calicut I have taken at 11° 18′. This city is remarkable for being the firſt Indian port viſited by European ſhipping: that is, by the Portugueſe, who landed there under Vaſco de Gama in 1498. It was then the moſt flouriſhing place on the Malabar coaſt, the Zamorin or Emperor making it the capital of a very extenſive ſtate. It appears to have fallen in its conſequence ſoon after; the new power of the Portugueſe occaſioning a revolution throughout the maritime parts of the peninſula.

The form of the coaſt between Calicut and Mahé, is taken from a ſketch of Major Abingdon's. Chitwa is ſaid to be in lat. 10° 38′,

by

by Capt. Drummond; but I cannot reconcile its ſituation to that parallel; as it cannot well be ſo near to Paniany. I have placed it in 10° 33′ 15″.

Mangalore is the next place to Mount Dilla, in Capt. Huddart's table, and its longitude given is 74° 44′; lat. 12° 50′. For about 5½ leagues to the N W of Mount Dilla, the form of the coaſt is taken from a French map in Mr. Dalrymple's collection; the reſt of the coaſt, to Mangalore, and from thence to Coondapour (or Baſſelore) in lat. 13° 36′, is little known as to particulars. A large river named Cangerecora, whoſe courſe is from the north-eaſt, falls in about 4 miles to the north of Mount Dilla; previous to which, its courſe is parallel with the ſea coaſt for about 11 miles, being ſeparated only by a ſpit of ſand. The forts of Neliſuram, Ramdilly, and Matteloy are ſituated on this river, which is joined by ſeveral other rivers, or ſtreams, that deſcend from the Gaut Mountains; which, in this part, approach within 22 miles of the coaſt. I cannot help conſidering this Neliſuram, which is ſituated about 12 miles up the river, as the place meant by Nelcynda and Melcynda, by Pliny and Ptolemy; a place viſited by the Egyptian and Roman ſhips.

We have been lately brought acquainted with the particulars of the coaſt, between Barcelore and Meerzaw (or Merjee) by means of a map drawn by Lieut. Reynolds, during the war which terminated ſo unfortunately for the Britiſh arms in 1783, in the Bednore country; to which this part of the coaſt is oppoſite. This map is drawn in a moſt maſterly ſtyle, and contains near 60 G. miles of the coaſt; and extends inland to the foot of the Gauts, which here, approach in ſome places within 6 miles of the ſea, and are never more than 20 from it. It includes the poſitions of Bednore and Bilghey within the Gauts; and alſo, Onore, Batcole, and Coomtah on the coaſt. We are furniſhed with the means of joining this portion of geography to the reſt, by having the longitude of Pigeon Iſland determined by Capt. Huddart; and by the poſition of it in

reſpect

reſpect of Fortified Iſland, near Onore. Pigeon iſland is very ſmall, and lies about 8 G. miles from the coaſt, and 15 from Onore *, and is in lat. 14° 1′. Its longitude is 74° 6′ 30″.

From Meerzaw, to Cape Ramas in the neighbourhood of Goa, we are but ill informed concerning the particulars of the coaſt. Between theſe, are ſituated the port of Carwar, and the iſlands of Angedive, both of them better known to the Engliſh in the early period of their India trade, and before they were in poſſeſſion of Bombay. Capt. Huddart fixed the longitude of Oiſter Rock in the mouth of Carwar Bay, and alſo that of the Aguada Point and caſtle, on the north ſide of the entrance of Goa Bay, or road. This he makes to be in 72° 34′ 30″; and it is worthy of obſervation, that the city of Goa, which is 11′ 15″ more to the eaſtward, and conſequently in 72° 45′ 45″ by the ſame account, was placed in the ſame poſition within a fraction of a minute, by the obſervation in the *Con. de Temps*; and which, for want of being better informed, I formerly diſregarded. The poſitions of Cape Ramas, Angedive, and Carwar Points, are corrected in reſpect of Aguada, by a ſet of obſervations and bearings of the late Capt. Howe, whoſe attention to marine ſcience, was equal to his gallantry, and knowledge of the practical part of his profeſſion. I have had occaſion repeatedly to acknowledge the aids I have been furniſhed with, by means of his collection of Obſervations and Remarks, in the poſſeſſion of Mr. Dalrymple.

The figure of the iſland of Goa, and its environs, to the foot of the Gauts, is taken from a Portugueſe MS. map of Mr. Dalrymple's. The latitude of Goa, and of the Aguada Caſtle, is 15° 28′ 20″.

Goa, the capital of the Portugueſe ſettlements in India, and the ſeat of a Viceroy, is a very conſiderable city. It was firſt taken poſſeſſion of by Albuquerque in 1510, and from a Prince of Saracen extraction, according to Jarric.

* When Fortified Iſland bore E ¾ N diſtant 2½ miles, Pigeon Iſland bore S ½ W, and Hog Iſland S S E. Hog Iſland bears from Pigeon Iſland E ½ S diſtant about 7 miles.

The

The coaſt between Goa and Bombay, near 220 G. miles, is little known to us in detail, nor indeed was the general bearing of it known, until Capt. Huddart furniſhed us with his ſeries of longitudes. By his account it appears, that this coaſt, although in the neighbourhood of our principal marine ſtation and arſenal in India, was deſcribed in the charts, with an error of very near a whole point of the compaſs, in bearing. Indeed the whole weſtern coaſt of India has far too great an obliquity from the north towards the weſt, in all the former charts; my own not excepted. Mr. Dalrymple accounted very rationally for it, by bringing to our recollection the great quantity of weſterly variation of the needle, that prevailed here, during the time of our firſt voyagers; and which is now reduced to leſs than 2 degrees. It is well known that it was a long time before the true north was diſcriminated in charts; and the original idea of the direction of this coaſt, was tranſmitted down to our days.

Perhaps there are few coaſts ſo much broken into ſmall bays and harbours, and that at the ſame time have ſo ſtraight a general outline. This multitude of ſmall ports, uninterrupted view along ſhore, and elevated coaſt, favourable to diſtant viſion, have fitted this coaſt for the ſeat of piracy; and the alternate land and ſea breezes that prevail during a great part of the year, oblige veſſels to navigate very near the ſhore. No wonder then, that Pliny ſhould notice them in his time as committing depredations on the Roman Eaſt India trade; and although a temporary check has been given them, in the deſtruction of Angria's fleets, &c. yet we may expect that they will continue the practice while commerce laſts. They are protected by the ſhallowneſs of their ports, and the ſtrength of the country within. As pirates, they have greater natural advantages than thoſe of Barbary, who being compelled to roam far from their coaſts, have expenſive outſets; here the prizes come to their own doors; and the cruiſers may lie ſecure in port, until the prey is diſcovered.

The

The Vingorla Rocks in lat. 15° 52′ 30″ Capt. Huddart took the longitude of, next to Goa, and made it 73° 16′ 30″. Theſe rocks lie about 6 or 7 miles off ſhore, of which we know but few particulars, farther than that it is poſſeſſed by a piratical tribe named Malwaans. The principal ports hereabouts are Melundy or Sunderdoo, a fortified iſland about 10 miles to the N E by N of Vingorla Rocks, and reduced by Commodore James in 1765: alſo Rairee, Vingorla, and Newtya: which laſt I cannot help thinking, is the *Nitrias* of Pliny, near which the pirates cruiſed for the Roman ſhips.

A Dutch MS. chart aſſiſted me in drawing the coaſt between Melundy and Antigherrya, an extent of about 70 G. miles. This chart was procured by Sir Joſeph Banks for Mr. Dalrymple: and the tract compriſed within it, contains the ports of Dewgur, Tamanah, Rajapour, Rampa, Antigherrya, and alſo Gheriah, late the capital and principal port of Angria. This place was found by Capt. Huddart to be in lon. 73° 8′; and its latitude is 16° 37′. Between Antigherrya and Bombay, are the ports and iſlands of Zivagee, Dabul, Severndroog, Fort Victoria (or Bancoote) Sufferdam, Danda-Rajapour, Choule and Coolabba. At Victoria, the longitude was found to be 72° 54′: latitude 17° 59′. The latitudes alone of ſeveral of theſe places, helped me to ſettle their poſitions, as the coaſt is nearly meridional; but I hardly expect to be free from miſtakes, in fixing ſuch a number of places, within ſo confined a ſpace, and with ſo few aids.

Bombay, the principal port and ſettlement of the Engliſh in this quarter, is ſituated in lat. 18° 58′, longitude by Mr. Howe's obſervation 17° 38.′ I have placed it in 17° 40′, or 2 minutes farther to the eaſt, which was occaſioned originally by a miſtake, and which would have coſt too much time to rectify, had I attempted it. Bombay is a ſmall iſland, ſcarcely more than 7 miles in length, and very narrow, containing a very ſtrong and capacious fortreſs, a large city, and a dock-yard, and marine arſenal. It was ceded to the Engliſh

Engliſh in 1662, by the Portugueſe, as part of the dower of the Queen of Charles II. On the N E it is ſeparated by a narrow ſtrait, from Salſette, a fine iſland of about 15 miles ſquare, and an acquiſition from the Marattas in 1773. Bombay, Salſette, and the neighbouring ſhores of the Continent, form a large ſound, in which are ſeveral other iſlands, particularly Caranjah and Elephanta, the latter famous for its ſubterraneous temple, and both of them acquiſitions from the Marattas.

Salſette alſo has its ſubterraneous temples, cut out of the live rock: all of which appear to be the monuments of a ſuperſtition anterior to that of the Hindoos *.

Baſſeen, a city and fortreſs of note, is ſituated on the point of the Continent oppoſite to the north end of Salſette. This place fell into the hands of the Engliſh, after a ſmart ſiege in 1780, but was reſtored to the Marattas, together with all the other conqueſts made on that ſide of India, at the peace of 1783, Salſette and the ſmall iſlands excepted. Baſſeen is ſituated in lat. 19° 19′, and under the ſame meridian as Bombay, as appears by the maps of that iſland and Salſette.

From Baſſeen to Surat, the ſurveyor with General Goddard's army, drew a meaſured line (as I am informed) and the reſult gave 9,5 G. miles of eaſting, or 10′ of longitude, for the difference between Baſſeen and Surat; by which the latter ſhould be in lon. 72° 50′. The difference of latitude N from Baſſeen, was found to be 52′, which added to 19° 19′, gives 21° 11′ for that of Surat. It is placed in 21° 10′ 30″.

It is a great misfortune to geography that no one obſervation of longitude ſhould have been taken, on the weſt of Bombay: by which default, we are precluded from correcting an extent of 7 degrees of longitude, along a coaſt that winds in ſuch a variety of

* At Elora near Dowlatabad, more than 200 miles to the eaſt of Salſette, are other temples of the ſame kind. For an account of theſe, ſee Thevenot: and for the former, Anquetil du Perron.

direc-

directions, and whose geography is composed of materials of so miscellaneous a kind, that it can hardly be expected we should steer clear of error in the construction of it. The position of Surat is indeed checked by the measured line of General Goddard's march from Burhanpour; where Mr. Smith had an observation of the longitude. And we have also a measured line professedly taken with bearings on shore, as far as Amedabad. But compasses often differ; and the variation is as often neglected.

Mr. Smith's longitude of Burhanpour is 76° 22′, (but I have taken it in my map at 76° 19′, the reason of which I shall shew in its proper place) and it is taken notice of now, only with a view to shew how far Surat, as it is placed here, agrees with the observation made on the east of it.

By the survey of Goddard's march from Burhanpour to Surat the difference of longitude between the two places appears to be 3° 30′ 45″, which taken from 76° 22′, leaves 72° 51′ 15″ for the longitude of Surat. I have before observed, that its longitude deduced from Bombay is 72° 50′: but having taken Burhanpour at 76° 19′, Surat will be in 72° 48′ 15″, and that is the longitude I have adopted for it; altering at the same time Goddard's difference of longitude from Basseen, to 8′ 15″, instead of 10′. And as Mr. Howe's longitude of Bombay was altered from 72° 38′ to 72° 40′, it appears that Surat stands as it would do by Mr. Howe's original observation, and with Goddard's original difference, of longitude.

The materials under different authorities, for the form of the coast between Basseen and Surat, do by no means accord together; nor have I the means of determining which to prefer. From Basseen to Arnaul, a fortified island, commanding the entrance of the Angassyah, or Mandavee river, I take from General Goddard's march, the only authority I can find. From Arnaul to Nonsary or Nossary, a few miles short of Surat river, there is a chart by Lieut. Ringrose; and also a chart from St. John's Point, to Surat river by Lieut. Skynner: by which means, we have about 50 miles

of the ſpace contained in Skynner's chart, included alſo in Ringroſe's; and an opportunity is given of comparing their bearings and diſtances, as well as Goddard's, which includes nearly the ſame ſpace. Here, to our utter aſtoniſhment, we find two charts, profeſſedly taken by authority, differ 11 degrees in bearing in an extent of 60 miles! for ſo much more eaſtwardly from the north, does Mr. Skynner make the bearing of Surat from Omergong, than Goddard's map does. As to the compariſon between Ringroſe and Skynner's charts, from St. John's Point to Noſſary, Ringroſe makes the bearing N 2° W, and Skynner N 10° E. Goddard's route coming cloſe to the ſea in the neighbourhood of St. John's, ſhews, if we may rely on his map, that the truth lay between Ringroſe and Skynner; but that Ringroſe came the neareſt to it.

Having taken Goddard's line for the general bearing, I have adapted the other charts to it, in the beſt manner I could; preſerving all their particulars, in which they do not differ ſo much as in generals. Such excellent ſurveying marks as Tarrapour and Valentine's Peaks, and Poneira Caſtle, &c. offer, might eaſily afford *data* for a ſeries of triangles; and of courſe, for a general ſurvey of this coaſt, in ſkilful hands: and take away from us the reproach of remaining ignorant of the true courſes between two of our principal factories, Bombay and Surat. St. John's Point does not appear to project far from the general line of the coaſt, either by Goddard's or Ringroſe's accounts, though deſcribed in that manner in all former charts. The ſhallowneſs of the water near it, has probably kept navigators at too great a diſtance to be informed of the truth. I apprehend that the hill called Segwah, in General Goddard's route, is what is called Valentine's Peak by navigators.

From Surat to Amedabad, through the city of Broach, there is a route of General Goddard's profeſſed to be meaſured, and taken mathematically. We had previouſly maps or ſurveys of the country between Surat, and the river Myhie, extending inland to Brodera, Dubhoi, and Zinnore, on the Nerbudda; but none of them went

beyond

beyond the Myhie. The following is the comparifon between the bearings and diftances of the different maps as far as they go.

		Bearing	Distance
From Surat to Brodera, by	Goddard	N 18° 55′ E	69,95 G. miles.
——————————	Turner	N 20 5 E	68, 4
——————————	Himming	N 18 28 E	68,85
	Medium	N 19 24 E	69,07

The differences here, are not great, confidering how much, compaffes and meafures often differ among themfelves. The medium of the 3 accounts differs fo little, in any refpect, from Goddard's, that we need not hefitate to adopt the reft of his line to Amedabad, which is fomething more than 50 miles to the north-weftward of Brodera. The moft remarkable difference in this quarter, is between Mr. Skynner's and others bearings and diftances between Surat and Cambay.

		Bearing	Distance
Mr. Skynner's is	-	N 22° W	83,2 G. miles.
Mr. Taylor's	-	N 9° 5′ W	67,7
Mr. Himming's	-	N 10 30 W	68,3

And it is remarkable that the deviation here, is from the north, towards the weft; on the former occafion, it was from the fouth, towards the weft. As Taylor's, Himming's, and Goddard's, agree fo nearly between Surat and Brodera, one cannot help giving the preference to their lines; or at leaft to the medium of both, between Surat and Cambay; which is placed in lat. 22° 16′ 45″, lon. 72° 32′ 45″.

Having altered the bearing of the eaft fide of the gulf of Cambay, it became neceffary, in order to preferve a proper width to the gulf, to give the weft fide a direction more oblique to the meridian, than appears in the original. At the fame time, as it appeared but reafonable that Groapnaught Point, fhould preferve the parallel of lati-

tude aſſigned it, in the original; the length of the weſtern coaſt, muſt neceſſarily be augmented, which it is, by 3 miles. The width of the gulf, in the original, from Swalley to Groapnaught, is 52½ G. miles. I have allowed it 48½ only.

It may be obſerved however that both D'Anville and D'Apres give even a more oblique direction to this coaſt than I have done; at the ſame time, that they give nearly the ſame direction to the eaſtern coaſt, that Mr. Skynner does; and by this means, bring the head of the gulf, almoſt to a point. D'Anville places Cambay 33′ of longitude weſt of Bombay, and D'Apres 25′. I have allowed only 7′ 15″. And Groapnaught Point, placed as above deſcribed, is in lon. 71° 42′ 30″; which is 4′ 30″ more eaſtwardly, than it would have been, had Mr. Skynner been followed throughout. It is unpleaſant to reflect that one is left in a ſtate of uncertainty on a matter of conſiderable importance; for ſuch, the true bearing of the oppoſite coaſts of a deep and dangerous gulf, muſt be regarded: and here we find a whole point in diſpute.

From Groapnaught Point, to Diu Head, I have followed Mr. Skynner's original bearing and diſtance; which gives 1° 50′ 15″ difference of longitude weſt; placing the weſtmoſt part of the Point, in lon. 69° 52′ 15″. The latitude is 20° 43′.

From Diu Point to Cape Monze, beyond the mouth of the Indus, or Sinde river, the bearing and diſtance is taken from a medium of three charts furniſhed by Mr. Dalrymple, and appears to be N 41° 20′ W; and the diſtance, corrected by the latitudes of Point Diu, and Cape Monze, the latter taken at 25° 5′, gives 3° 58′ difference of longitude; placing Cape Monze in 65° 54′. M. D'Anville places this Cape near a degree more to the eaſtward; and makes the longitude between it and Bombay 4° 57′, inſtead of 6° 44′, as given in my map: and this makes a great alteration in the figure of the coaſt between Surat and the mouth of the Sinde, or Indus: the peninſula of Guzerat being much larger than was formerly ſuppoſed,

the

the gulf of Sinde (or Cutch) much ſmaller; and the Delta of the Indus projecting into the ſea, inſtead of receding from it.

The ſeveral charts of the weſtern coaſt of the peninſula of Guzerat, and of the coaſt of Sinde, differ in a variety of particulars; and would make a minute diſcuſſion of them, too tedious, even for this Memoir; and beſides, nothing appears in either of them, to claim a preference. In the general bearing above given, the three charts differed no more, among themſelves, than 2° 15′, in bearing; but the charts of the mouth of the Sinde and the gulph of Cutch, differed ſo much that Mr. Dalrymple thought proper to publiſh them all ſeparately, in order that every perſon might be enabled to judge for himſelf. On collating the names of the different mouths of the Sinde, one finds great contradictions; and it is very difficult to identify them in the ſeveral charts. The flatneſs and want of variety in the appearance of the coaſt, added to the ſand-banks which keep navigators at a diſtance, and prevent their diſcriminating any minute objects that may occur, occaſion theſe miſtakes. The tombs alone appear to be the marks for the coaſt. The latitude of Ritchel I have taken at 24° 21′; and that of Caranchy or Crotchey, at 25°.

All the particulars of the weſtern coaſt of Guzerat, and the mouth of the Sinde, are copied from the abovementioned MS. and printed charts of Mr. Dalrymple's: and conſequently the whole coaſt from St. John's Point to Cape Monze, is deſcribed from new materials.

I now return to Balaſore.

From Balaſore, eaſtward to Chittigong, the diſtance has been determined by the inland ſurvey; and the figure of the coaſts and inlets by Capt. Ritchie's ſea ſurvey. The difference of longitude between the towns of Balaſore and Chittigong (or Iſlamabad) is 4° 53′ eaſt; and, it is worthy of remark, that the diſtance by Capt. Ritchie's marine ſurvey, agreed with the meaſurement on ſhore, to within two miles and a half.

The

The charts as late as the year 1752, repreſented the difference of longitude between theſe two places, to be only 3° 48′; that is, 1° 5′ leſs than the truth. And this diminution of the longitude, while the difference of latitude continued right, gave the ſea coaſt between the mouths of the Ganges, a direction of two points, or 22½ degrees more northwardly than the truth; which doubtleſs occaſioned the loſs of many ſhips, who truſted to the information.

From Iſlamabad, in longitude 91° 55′, latitude 22° 20′, the coaſts of Aracan and Pegu take a S S E courſe to Cape Negrais, the extreme point of Pegu to the ſouth-weſt; the latitude of which is under 16 degrees, and diſtance from Iſlamabad about 420 G. miles. The outline of this whole coaſt has been traced by Capt. Ritchie, under the ſame direction, and in the ſame manner, as the coaſts on the weſt ſide of the bay. He made the difference of longitude 2° 32′ eaſt from Iſlamabad; placing Cape Negrais in 94° 27′ *. Mr. Dalrymple, who has taken uncommon pains to aſcertain the bearing of this coaſt, from journals, and a variety of ſketches and remarks, makes the difference of longitude 2° 34′, or only 2′ different from Mr. Ritchie. The reſult of this laborious enquiry, corrected by a nicely diſcriminating judgment, corroborates, in the ſtrongeſt manner, Capt. Ritchie's calculation; and affords a degree of ſatisfaction next to that of an actual obſervation.

I mean to have it underſtood that Capt. Ritchie's chart of this coaſt, is to be taken only as a general outline, being imperfect as a coaſting chart. Many particulars on this coaſt are taken from Mr. Dalrymple's collection, both printed and MS.: particularly, the river of Aracan, the eaſt ſide of Cheduba, and the paſſage between it and the main; and a variety of particulars on the coaſt of Ava. Some of the names of places were alſo miſconceived by Capt. Ritchie.

* The longitude of this Cape was reckoned by M. D'Anville only 93° 16″: ſo that the New Map increaſes the diſtance between the mouth of the Sinde (or Indus) and Cape Negrais, 2 degrees and 7 minutes of longitude.

Capt.

Capt. Ritchie's latitude of Cape Negrais, or Pagoda Point, is more ſouthwardly than it is commonly taken at, by 10 minutes; which I cannot account for, as his obſervations of latitude are generally exact. I have placed this Cape (by which I mean the ſouth extremity of the coaſt of Ava) in 15° 57′, by the medium of 6 different accounts, varying from 15° 51′, to 16° 4′. Capt. Ritchie's was 15° 52′ 30″.

At this point, my materials for aſcertaining the intermediate longitudes of places on the eaſtern ſide of the bay, fail me: and I have been under the neceſſity, in a great meaſure, of ſubſtituting judgment for fact, between Cape Negrais and the next place of obſervation, Mergui: which place, as it is given by M. D'Apres in his new *Neptune Orientale*, is in 98° 20′ eaſt longitude, or 3° 53′ eaſt from Cape Negrais. M. D'Anville allows 4 degrees; which comes within 7 minutes of mine; but although we agree nearly in the aggregate, we differ widely in point of particulars.

The MS. charts that I have conſulted, make the difference of longitude in queſtion, 4° 30′ on a medium; which is 37′ more than I make it. And M. D'Apres makes it 4° 19′.

The diſagreement in particulars between M. D'Anville's account and mine, ariſes in the part between Cape Negrais, and the coaſt of Martaban. It happens that this coaſt lies in a direction ſo far from meridional, and at the ſame time the tides and currents of the ſeveral mouths of the Ava river, do ſo diſturb and falſify the ſhip's reckonings, that the true diſtance can never be aſcertained that way, in the ordinary courſe of navigation. Plans of the Perſaim and Syrian rivers, as high up as the cities of thoſe names reſpectively, have been already publiſhed in Mr. Dalrymple's collection; and, fortunately, I have been able to obtain tracings of the continuations of thoſe rivers (which are the two extreme branches of the Ava river) to the place where they ſeparate from the main river, at about 150 G. miles from the ſea. The bearings of the two branches interſect each other at an angle of about 60 degrees; and, therefore,

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fore, by the help of the latitude, may be uſed, in correcting the length of the coaſt between Negrais and Syrian. The Perſaim, or Negrais branch, was traced by that accurate obſerver, Capt. George Baker, in his way to Ava in 1755. I have not been able to learn by whom the Syrian branch was traced; but by the orthography of the words in the map, the author appears to have been a Dutchman.

The reſult of theſe bearings, corrected by the latitude, as ſet forth in the Syrian map, gives difference of longitude from Negrais Point, to the mouth of the Syrian river, 2° 21′ eaſt; which is about 10′ leſs than M. D'Apres makes it, and 21′ leſs than M. D'Anville. Some of the MS. charts make the difference ſtill more.

The mouths of the Ava river, which form an aſſemblage of low iſlands, like thoſe of the Ganges, are deſcribed from ſeveral MS. charts of Mr. Dalrymple's, collated with M. D'Apres' new chart.

From the mouth of the Syrian river to the coaſt of Martaban, in latitude 15° I have copied from the new chart of M. D'Apres, publiſhed a very ſhort time before his death. The figure of the coaſt is quite new.

Between the aforeſaid latitude and Tavai Point, our charts are very imperfect; but generally agree in giving the coaſt a direction of ſouth, a very little eaſtwardly.

From Tavai Point to Mergui, the coaſt is taken from a MS. chart compiled by the late Mr. Howe.

Mergui is placed, as I have ſaid before, according to M. D'Apres' obſervation: that is, in longitude 98° 20′; latitude 12° 9′.

All the remainder of the coaſt, to Junkſeilon; and the whole Mergui Archipelago, is from M. D'Apres.

I NEXT

I NEXT proceed to the chain of iſlands that extend from Cape Negrais to Sumatra; and are known by the names of the Preparis, Cocos, Andaman, and Nicobar iſlands.

Capt. Ritchie, after leaving Negrais, proceeded agreeably to his inſtructions, to deſcribe the ſituation and extent of the iſlands that compoſe this chain.

None of them are more than 84 G. miles diſtant from each other; ſo that he needed never to be more than 42 miles from land: and that but once during the voyage; that is to ſay, between the Little Andaman and the Nicobar iſlands. In other places, the diſtance between the lands is commonly much leſs: ſo that the meridional direction of the courſe, and other circumſtances, render this line of much uſe in correcting the longitudes, not only of the iſlands themſelves, but of Sumatra alſo; and, had it been continued as was intended, to Acheen, would have anſwered the purpoſe completely.

Paſſing the Preparis and Cocos iſlands, Capt. Ritchie proceeded to Narcondam, to fix its poſition: then back again to Cocos; down the eaſt ſide of the Great Andaman, (which he found to be almoſt a degree of latitude longer than was before ſuppoſed) then up the weſt ſide of it, almoſt to the latitude of 12°: when finding the attempt to circumnavigate the iſland, might prove fatal to the remainder of his work, he proceeded ſouthward; deſcribing the extent, figure and poſitions of the Little Andaman and the Nicobars, till he came to the ſouth point of the great (or ſouthmoſt) Nicobar. Here the wind ſuddenly changed to the ſouth, and prevented him from determining the reſpective poſitions of the ſouthern Nicobar and Acheen: which is the more mortifying, as one day's fair wind would have enabled him to accompliſh it.

The reſult of this line of bearing is, that the ſouth end of the Great Nicobar, is in longitude 94° 23′ 30″; that is, only 3′ 30″ weſt from Cape Negrais.

The poſition of Acheen Head, or King's Point (the N W point of Sumatra) has hitherto been deduced from its bearing and diſtance from Malacca, the neareſt place of obſervation; and its longitude according to this deduction, is 95° 30′ according to M. D'Apres. Now the bearing of Acheen from Malacca, being in a direction of more than 60 degrees from the meridian, and the diſtance 450 G. miles; little reliance could be placed on the reſult of it, if it did not happen that the reſpective poſitions of the ſouthern Nicobar, and of Pouloo Ronde (an iſland near Acheen) the one deduced from Negrais Point, and the other from Malacca, agreed nearly with their reputed bearing and diſtance from each other. For, of two MS. charts which I have examined, the one makes 1° 1′, the other 1° 2′ difference of longitude between them; and theſe being laid down apparently without any attempt to ſupport a ſyſtem, may be ſuppoſed to be agreeable to experiment. The bearings and diſtances in theſe MS. charts are

In one S 56° E — 72 G. miles.

And in the other S 56 E — 75

And according to the deduced longitudes abovementioned, the bearing and diſtance is S 56 E — 76

So that there cannot be any great error in the longitude of Acheen, as laid down in M. D'Apres', and in my map, if this ſort of coincidence can be reckoned a proof of accuracy: a difference of a few miles, in the diſtance of 8 degrees, being much leſs than could be expected in ſuch a ſeries of deductions. M. D'Apres makes the bearing and diſtance between the ſouth Nicobar and Pouloo Ronde S 57° 30′ E 97 G. miles; or difference of longitude 1° 22′, that is, 22′ more than the MS. charts. It muſt be obſerved, that he reckons the ſouth end of this Nicobar, 9 miles farther to the north than the truth; occaſioned by his making the iſland ſo much too little in extent: for the north end is in its true latitude. Had the ſouth point of the iſland been in its true latitude, the bearing of Pouloo Ronde would have been more eaſtwardly, and the diſtance only

only 93, inſtead of 97: and if, on the contrary, he has enlarged his diſtance on the original bearing, to make it anſwer to the latitude, the original diſtance could have been only 85 miles.

I have ſaid before that Capt. Ritchie went no higher up the weſt ſide of the Great Andaman, than about the latitude of 12°. The remainder of that coaſt, as well as the paſſage through the iſlands at the north end of it, is from a MS. chart lent me by Mr. Dalrymple; and which carries with it the greateſt appearance of truth, on a compariſon of the ſouth and ſouth-weſt parts of the Great Andaman in this chart, with the ſame parts in the chart of Capt. Ritchie.

Barren Iſland, and the rock on the eaſt of Duncan's Paſſage, are from the remarks of Capt. Juſtice in 1771.

ISLAND OF CEYLON.

IT happens that the ordinary tracks of Britiſh ſhips, to and from Ceylon, and the coaſt of Coromandel, are not calculated for determining the relative poſitions of Point Pedro and Point Calymere, the approximating points of Ceylon and the continent of India. Hence it is, that we are ſo ill informed, not only of their true ſituations with reſpect to each other, but alſo with reſpect to the parallel of latitude under which Point Pedro is ſituated.

By my obſervations, Point Calymere (the ſouthern extreme of Coromandel) lies in 10° 20′ latitude, and by inference from Madras, in longitude 79° 54′ 30″. M. D'Apres places it 6 minutes more northwardly; and D'Anville 7 further ſouth. The latitude of Point Pedro, is alſo variouſly repreſented by the above geographers: I have taken it at 9° 52′.

In M. D'Apres I find the bearing and diſtance from Point Calymere to Point Pedro, to be - S 37° E 41 G. miles.

In D'Anville - -	S 39 E	38
In a MS. chart, no name -	S 46° 30′ E	40

I had an opportunity in 1764, of determining the poſition of Cow Iſland from Tondi, nery nearly: I made it 10 G. miles weſt of Point Calymere, and 39 eaſt of Tondi. Between Cow Iſland and Point Pedro, Van Keulen reckons 41½, and D'Apres and D'Anville, 42 miles, of eaſting. This will place Point Pedro 31½ eaſt of Point Calymere; or in longitude 80° 27′, and in bearing from Point Calymere E 43° 20′ S; 42½ G. miles diſtant. I have placed it in this ſituation accordingly; as thinking it not liable to any great objection.

The figure of the iſland of Ceylon is variouſly repreſented by different geographers. Van Keulen makes it too narrow, in the ſwelling part: that is, between Batacola and Columbo; as is pretty evident from the longitudes ſhewn by the time-keepers of ſome of the commanders of the Eaſt India ſhips, and others. D'Anville and D'Apres in their maps of the iſland, agree much better with theſe obſervations.

Between the meridians of Calitoor and the eaſt ſide of Ceylon in lat. 7° 40′, Van Keulen reckons the difference of longitude

only - - -	1°	46′
M. D'Anville - -	2	1
M. D'Apres - -	2	8
And by the time-keepers it is	2	12

However, until a regular ſeries of obſervations by time-keepers are made by the ſame perſon, all round the iſland, we muſt deſpair of ſeeing the true figure of it, unleſs its coaſts were ſurveyed. The caſual obſervations which we are in poſſeſſion of, from different hands, will only aſſiſt us in fixing certain points of it; which being done, the general figure of the iſland muſt be collected in the beſt manner it can be done, from the charts exiſting.

The

The following are the obſervations of longitude taken on the ſouth ſide of Ceylon.

Point de Galle by Capt. Huddart	-	80° 1′ 30″ *
——————— Dundas	-	80 7
——————— Weſt	-	80 17 †
The medium of theſe 3 accounts is		80 8 30

Dundrahead by Mr. Topping's obſervation (worked to Pondicherry in lon. 80°) is in lon. 80° 39′: I reckon Point de Galle 28′ weſt from Dundrahead, therefore it ſhould be by this account in 80° 11′.

Mr. Topping obſerved the longitude of the Great Baſſas alſo; ſo did Capt. Dundas: but as we are not well informed concerning the exact difference of meridians between them, and they being at leaſt 1° 22′ diſtant, nothing in theſe obſervations will apply to Point de Galle.

There is certainly too much diſcordance between the three longitudes of Point de Galle given above; the medium of which is 80° 8′ 30″. As Anjenga and Cape Comorin were placed 3′ farther to the eaſtward, than Capt. Huddart's obſervation warranted, in order to accommodate the differences between the two calculations, Point de Galle ſhould be reckoned in 80° 11′ 30″. Mr. Dalrymple's time-keeper gave the difference of longitude between Anjenga and Point de Galle 3° 29′ 30″, which added to 76° 40′ (ſee page 19) gives 80° 9′ 30″.

If we conſider the reſpective poſitions of Point Pedro and Point de Galle by the different geographers, we ſhall have the following reſult:

* Deduced from Bombay, which is reckoned in 72° 40′.

† Capt. Weſt reckoned from Sadras, which I place in 80° 24′. He reckoned it 80° 19′; and of courſe, Point de Galle in 80° 22′.

Van Keulen places Point de Galle west of Point Pedro	-	13′ 45″
M. D'Apres	- -	10
M. D'Anville	- -	3
Medium of the three		8′ 55″ or 9′

And the longitude of Point Pedro being taken at 80° 27′, Point de Galle by this rule will be in 80° 18′.

On an occasion like this, where we are not likely to come exactly at the truth, since no one can pretend to say, whether the longitude of Point de Galle be 80° 1′ 30″ or 80° 18′; I thought it better to ensure a certain good, at the hazard of a small mistake, than to sacrifice that advantage, by adhering to a result, which in itself was problematical. In other words, I judged it better to preserve the general form of the island, and consequently the respective positions of the north and south points of it, as given by D'Apres; and which appear to me to agree best with the result of the observations of longitude, taken on different sides of it; than to change those relative positions, which must have been done, had Capt. Huddart's observation at Point de Galle been adopted. I have therefore placed Point de Galle 10′ west of Point Pedro (according to D'Apres); that is, in lon. 80° 17′. Had I adhered to the observations, in respect of Cape Comorin, it would have been 80° 11′ 30″. The medium of all the observations and deductions, is about 80° 14′ 30″. The observations differ among themselves 14′ 30″. The latitude of this Point is 6 degrees; and of Dundrahead, the southmost point of the whole island 5° 51′.

The observations at Dundrahead, were, by Mr. Topping 80° 39′, and by Capt. Huddart 80° 23′. The Great Bassas, by Mr. Topping 81° 41′; by Capt. Dundas 81° 30′. The variation in these longitudes, shew that a series of them by the same person, and the same time-keeper, is by much the most desireable.

The

The longitudes on the eaſt ſide of Ceylon, by 3 different gentlemen; (viz.) Capt. Cumming, Capt. Weſt, and Mr. Topping, do not diſagree ſo much as thoſe on the ſouth ſide of the iſland. They are theſe:

				By conſtruction.
In lat. 7° 40′	Mr. Topping's longitude was	-	82° 2′	81° 58′
6 33	Capt. Weſt's	- -	81 55	82
6 53	Capt. Cumming's	-	82	82 2
7 31	Ditto	- - -	82 1	82 1

Together with M. D'Apres' dimenſions of the iſland, (in the ſouthern parts, particularly) I have adopted his detail of the coaſt from Columbo to Vendelos Bay. From Vendelos Bay to Point Pedro, the coaſt in Van Keulen appears to be too nearly meridional, and his latitudes too much ſouthwardly. Again, on the weſt ſide, from Columbo to Manar, I followed D'Apres' bearing, which is more north-eaſtwardly than Van Keulen's. Indeed it could not be otherwiſe, than that both the eaſt and weſt coaſts muſt have a greater degree of obliquity from the meridian, than Van Keulen repreſents: becauſe he allows too little breadth to the ſouth part of the iſland. In ſhort, the general form of the iſland is D'Apres: but the particulars are collated with Van Keulen's and D'Anville's maps.

The diſtance from Mentole Point, on Ceylon, to Point Ramen on the continent I take to be leſs by 11½ G. miles, than Major Stevens ſuppoſed it to be, in his chart; nor can it be otherwiſe, to reconcile it to my poſition of Cow Iſland.

The Maldive and Laccadive Iſlands are copied from M. D'Apres; ſave that the poſition of the northmoſt Maldive Iſland (called by the French *the head of the Iſlands)* is placed according to Mr. Topping's obſervations of latitude and longitude in 1785. He made the latitude of it 7° 5′, and the lon. 73° 4′; and when oppoſite to it on the north, he counted 32 iſlands; the furtheſt bearing S E by E.

SECT-

SECTION II.

The surveyed Tract on the side of BENGAL, *or that occupied by the Course of the* GANGES, *and its principal Branches, as far west as the City of* AGRA.

THIS extensive tract, which comprizes the soubahs of Bengal, Bahar, Allahabad, and Oude; a large portion of Agra and Delhi, and a small part of Orissa, is bounded on the east, by Assam, and the dominions of Ava; on the south-east, by the gulf, or bay of Bengal; on the south-west by an imaginary line drawn from the port of Balasore in Orissa, to the city of Narwah; on the west by another such line drawn from Narwah, through the city of Agra to Hurdwar, the place where the Ganges first enters the plains of Hindoostan; and on the north, by the first ridge of mountains towards Bootan. It is in length from the city of Agra, to the eastern confines of Bengal, upwards of 900 British miles; and in breadth from 360 to 240.

With respect to the particulars of this survey, which was executed between the years 1763 and 1777, it is unnecessary to say more than that the distances were measured, and that they accorded with the observations of latitude and longitude: with the former minutely, and with the latter so nearly, that it was unnecessary to make any correction.

Agra, by Claud Boudier's observation, is in -	78°	29′
Calcutta, by the medium of four observations	88	28
Difference of longitude by observation -	9	59
By survey - - - -	9	58
And Calpy on the river Jumnah, stands in the survey in lon.	80°	4′
And by the Revd. Mr. Smith's observations -	80	0

Agra,

Agra, then, appears to be the moſt weſtern point determined by the ſurvey; and ſerves as a common point of union between the ſurveys on the eaſt, and the routes furniſhed by various MS. maps, and itineraries, on the north, ſouth, and weſt. By means of the ſurvey alſo, a number of points are aſcertained, which ſerve to ſet off curſory ſurveys of roads both to the weſt and ſouth: ſuch as Hurdwar and Ramgaut, on the north of Agra: and Gohud, Calpy, Chatterpour, Rewan, Burwa, and Balaſore on the ſouth.

As this tract contains the ſite of the famous city of Palibothra (or Palimbothra) as well as thoſe of Canoge (or Kinnoge) and Gour, it may not be amiſs to take ſome notice of them: as alſo of ſome of leſſer note, ſuch as Punduah, Tanda, Satgong, (or Satagong) and Sonergong: all of which, (Palibothra excepted) are mentioned either in the Ayin Acbaree. or in Feriſhta.

Pliny is the only one among the ancients (as far as I know) that aſſigns a particular ſpot for the ſite of Palibothra; the reſt only ſpeaking generally of its ſituation, and as it appears by a diſcuſſion of particulars, contradicting one another. All are agreed that it was ſituated on the right bank of the Ganges (that is, *intra Gangem*) and at the confluence of a large river with it. This river was named *Erranoboas* according to Arrian (who had his intelligence from Megaſthenes's journal) and was of the third degree of magnitude among the Indian rivers; and inferior to none but the Ganges and Indus. I cannot apply the name Erranoboas to any particular river. Pliny certainly ſays that the *Jomanes* (Jumnah) entered the Ganges by Palibothra, between *Methora* and *Cliſobara* *; but it is equally true, that in another place, he mentions the conflux of the Ganges and Jomanes, and in the very next article ſays that Palibothra is ſituated 425 miles below that very point of conflux. Strabo does not give the name of the adjunct river.

Palibothra, was the capital of the Praſii, by the account of Megaſthenes, who reſided there; and was of very great dimenſions,

* The different readings are *Caryſobora*, and *Cyriſoborca*.

H being

being 80 ſtadia in length and 15 broad. If we reckon theſe meaſures to produce 10 miles in length, and near two in width *, which for a European city, compactly built, would be reckoned enormous; yet it does not exceed the dimenſions of ſome of the capital cities of the Indian ſoubahs or vice-royalties. The ruins of Gour in Bengal, are more extenſive; that of ancient Delhi much more ſo. The plans of the Indian cities contain a vaſt proportion of gardens and reſervoirs of water; and the houſes of the common people conſiſt of one floor only: of courſe, fewer people can be accommodated in the ſame compaſs of ground, as in an European city; and this may account for the enormous dimenſions of Aſiatic cities.

As Pliny's Indian itinerary (in Book VI.) enumerates the particulars of the whole diſtance between the Indus and the mouth of the Ganges; and particularizes the ſite of Palibothra; it could hardly be doubted that ſome very large city ſtood in the poſition aſſigned to it: but I had always a doubt of its being the capital of the Praſii † viſited by Megaſthenes. Late enquiries made on the ſpot, have, however, brought out this very intereſting diſcovery, that a very large city, which anciently ſtood on or very near the ſite of Patna, was named Patelpoot-her (or Pataliputra, according to Sir William Jones) and that the river Soane, whoſe confluence with the Ganges is now at Moneah, 22 miles above Patna, once joined it under the walls of Patelpoot-her. This name agrees ſo nearly with Palibothra, and the intelligence altogether furniſhes ſuch poſitive kind of proof; that my former conjectures reſpecting Canoge, muſt all fall to the ground; notwithſtanding that Canoge was unqueſtionably the capital of a large kingdom from very early times.

I conſider the above information as too clear and poſitive to require any proofs from ancient authors; and therefore the following

* The olympic ſtade can hardly be taken at a furlong, but probably at 200 yards. Then the dimenſions will be about 9 B miles in length, and 1¾ in width.

† The empire of the Praſii ſeems to have included moſt of the tract through which the Ganges flows, after it enters the plains of Hindooſtan.

exami-

examination of Pliny's itinerary, is intended rather to ſhew his great accuracy in geographical ſubjects, than as a proof of the above poſition; although it may ſerve that purpoſe alſo. To uſe the words of a celebrated author, "Pliny's natural hiſtory is one "of the greateſt monuments of univerſal knowledge, and unwearied "application, now extant in the world *." That part of the itinerary, applicable to my purpoſe, is as follows:

From Taxila or Tapila, on the Indus (probably near the ſite of *Attock*) † to the river Hydaſpes (the modern Chelum) 120 Roman miles.

To the Hyphaſis (*Beyah*) - -	390 Roman miles.
To the Heſudrus, probably the *Setlege* river	168
To the Jomanes (*Jumna*) - - -	168
To the Ganges - - - -	112
To Rhodopa - - - -	119
To Calinapaxa (a city) - - -	167
To the conflux ‡ of the Jomanes (Jumna) and Ganges - - - -	225
To Palibothra - - -	425
To the mouth of the Ganges - -	638

It muſt firſt be obſerved, of this itinerary, that it furniſhes no means of comparing the *whole diſtance* between the Indus and the mouth of the Ganges, as ſhewn here, with that on the map; becauſe the ſecond article, namely, the diſtance from the Hydaſpes to the Hyphaſis, is obviouſly wrong, even if the text (which is very obſcure) is to be taken at 390: for it cannot be more than 220 of Pliny's miles, unleſs the ſurveyor of Alexander's marches threw

* Blackwall.

† Taxila or Tapila, and the Indus, are mentioned as one and the ſame place by Pliny: *Ad flumen Indum et oppidum Taxila.* Book VI.

‡ Here we may remark, by the way, that if any capital city had ſtood at the conflux of theſe rivers, it is likely that Pliny would have taken notice of it.

into the account, the circuitous route to the city of Sangala, &c. after the Catheri or Cathei. So that the account, as far as it regards the *whole* diſtance, is vitiated; and we muſt therefore have recourſe to *parts*. Taking therefore for granted, that the Beyah river is meant by the Hyphaſis (or rather Hypaſis) as I hope to prove ſatisfactorily in my obſervations on Alexander's march; and meaſuring on the map, along the line of the great road from the Panjab country to the mouth of the Ganges, the diſtance will be about 1140 G. miles: and as the itinerary in queſtion gives the length of the ſame interval at 2022 Roman miles, the proportion of one of Pliny's miles to a geographic mile, will be as 56 to 100, in horizontal diſtance; or about $\frac{7}{10}$ of a Britiſh mile in road diſtance. This is certainly too ſhort for the Roman mile of 1000 paces *; but the queſtion in the preſent caſe, is not the actual diſtance, but the proportions of the intermediate parts of the road. The conflux of the Ganges and Jumna, on the map, is 990 of Pliny's miles from the Beyah, and 1032 above the mouth of the Ganges: and the itinerary makes the length of the firſt interval 959, the other 1063; that is, Pliny's account places the conflux too far down by 31 of his miles, or about 17 G. miles. Nor is this difference at all to be regarded in the general queſtion: for our ideas of the diſtance were much wider of the truth, 20 years ago.

Palibothra, he places 425 miles, or ſo many parts in 1063, of the diſtance from the conflux of the Jumna to the mouth of the Ganges: and this is the point we are to attend to. Patna indeed, is only 345 of Pliny's miles below the preſent conflux; and this difference of 80 of Pliny's, or about 44 G. miles, however conſiderable it may appear to thoſe who expect nice coincidences in ſuch matters as theſe; does not, in my idea, leſſen the general authority of the itinerary: becauſe if we admit only what is literally proved,

* M. D'Anville is of opinion that Pliny turned the Greek ſtades into miles, at the rate of 8 to a mile; and thus accounts for their ſhortneſs. M. D'Anville, who has gone deeply into the ſubject, thinks that it requires 1050 itinerary ſtades (of horizontal meaſure, I apprehend) to make a degree of a great circle. See his Eclairciſſemens, page 55.

6 Pali-

Palibothra muſt ſtill have been ſituated within 44 miles of Patna. And as the people there have a tradition that Patna ſtands on, or near, the ſite of Patelpoot-her, it rather proves to me either that there is an error crept into the copies of the itinerary; which notwithſtanding, proves in generals as much as is required; or that the point of conflux of the Jumna with the Ganges, has undergone a change. For although the point of conflux is not found in the very poſition in which it ought to be by the itinerary, yet Patna is nearer to the poſition aſſigned to Palibothra. It may appear to ſome, a violent way of reconciling diſagreements, but it is no new thing for the rivers of India to change their courſe and place of confluence. I have in another place* taken occaſion to obſerve that the Coſa river changed its place of confluence with the Ganges, which is now 45 miles higher up, than it was. The Burrampooter has varied its courſe ſtill more. And to come nearer to the ſite of Patna, the change in the conflux of the Soane, juſt now remarked. It would be unneceſſary to enter ſo far into a diſcuſſion of theſe differences, had not Pliny aſſured us that the diſtances were meaſured; and that by order of *Seleucus Nicator*.

We may obſerve that Arrian does not mention the name *Jomanes* in his book, although he does that of *Sonus*. And if we had no other authority than that paſſage in Pliny, which expreſsly ſays that the Jomanes, a river which paſſes by *Methora* (probably *Matura)* runs into the Ganges by Palibothra, we muſt have ſuppoſed that this city was ſeated at the conflux of the two rivers. But the itinerary ſays that Palibothra was 425 miles below this conflux. Pliny muſt therefore have meant another river, different from the Jomanes.

Strabo gives the diſtance of Palibothra above the mouth of the Ganges at 6000 ſtadia; and though we cannot fix the exact length of the ſtade, we can collect enough to underſtand that 6000 ſtades

* Philoſophical Tranſactions, Vol. lxxi, page 99.

laid,

laid off from the mouth of the Ganges would not reach far, if at all, beyond Patna *. Nor muſt we forget the paſſage of Arrian (in Indicis) in which Palibothra, the chief city of the Indians upon the Ganges, is ſaid to lie *towards the mouths of that river*. But we ought not to omit, on the other hand, that Arrian quotes from Eratoſthenes, the diſtance of Palibothra from the weſtern extreme of India, which is ſaid to be 10,000 ſtades, only: and that Ptolemy gives its latitude at 27°; both which particulars apply better to Canoge than to Patna. It is poſſible that both places may have been occaſionally uſed as capitals of the Praſii, as we have known both Agra and Delhi to have been of Hindooſtan in general, during the two laſt centuries.

Pliny's Palibothra, however, is clearly Patna: and it is probable that Strabo meant the ſame place, by the diſtance from the mouth of the Ganges.

Canoge †, the ruins of which are at preſent of great extent, was, in an early part of the chriſtian æra, the capital of Hindooſtan; or rather, of the principal kingdom along the Ganges. It is now reduced to the ſize of a middling town. It is ſituated on the right bank of the Ganges, near the place where the Calini river (or Callynuddi) joins it; and is poſſibly the place meant by Pliny for *Calinipaxa*. It is ſaid to have been built more than a 1000 years before our æra: and is mentioned in Feriſhta ‡ as the capital of all Hindooſtan, under the predeceſſor of Phoor, or Porus, who fought againſt Alexander. In point of extent and magnificence, Canoge anſwers perfectly to the deſcription given of Palibothra; and in ſome reſpects to the local poſition of it given by Ptolemy and Eratoſthenes, did not the above authorities aſſign it in a poſitive manner to Patna. The Indian hiſtories are full of the accounts of its grandeur and populouſneſs. In the ſixth century it was ſaid

* See page 52 where 1050 to a degree is the proportion fixed on by M. D'Anville.
† Latitude 27° 3′, Longitude 80° 13′.
‡ Before Chriſt 326 years.

to

to contain 30,000 ſhops, in which betelnut was ſold (which the Indians, almoſt univerſally, chew, as ſome Europeans do tobacco). In A. D. 1018, it was ſeized on, by the Gaznian Emperors: at which time, it gave its name to the kingdom, of which it was the capital.

Gour, called alſo Lucknouti, the ancient capital of Bengal, and ſuppoſed to be the *Gangia regia* of Ptolemy, ſtood on the left bank of the Ganges, about 25 miles below Rajemal *. It was the capital of Bengal 730 years before Chriſt †, and was repaired and beautified by Acbar ‡, who gave it the name of Jennuteabad; which name, a part of the circar in which it was ſituated, ſtill bears. According to Feriſhta's account, the unwholeſomeneſs of its air, occaſioned it to be deſerted ſoon after §; and the ſeat of government was removed to Tanda, or Tanrah, a few miles higher up the river.

No part of the ſite of ancient Gour is nearer to the preſent bank of the Ganges than four miles and a half; and ſome parts of it, which were originally waſhed by that river, are now 12 miles from it. However, a ſmall ſtream that communicates with the Ganges, now runs by its weſt ſide, and is navigable during the rainy ſeaſon. On the eaſt ſide, and in ſome places within two miles, it has the Mahanada river; which is always navigable, and communicates alſo with the Ganges.

Taking the extent of the ruins of Gour at the moſt reaſonable calculation, it is not leſs than 15 miles in length (extending along the old bank of the Ganges) and from 2 to 3 in breadth. Several villages ſtand on part of its ſite: the remainder is either covered with thick foreſts, the habitations of tygers and other beaſts of prey; or become arable land, whoſe ſoil is chiefly compoſed of brick-duſt. The principal ruins are a moſque lined with black marble, elaborately wrought; and two gates of the citadel, which are ſtrikingly

* Latitude 24° 53′, longitude 88° 14′. † Dow 1ſt. 6. ‡ A. D. 1575.

§ This is Feriſhta's account; but ſome of its preſent inhabitants told me that it was deſerted in conſequence of a peſtilence.

grand

grand and lofty. Theſe fabricks and ſome few others, appear to owe their duration to the nature of their materials, which are leſs marketable, and more difficult to ſeparate, than thoſe of the ordinary brick buildings; which have been, and continue to be, an article of merchandize; and are tranſported to Moorſhedabad, Mauldah, and other places, for the purpoſe of building. Theſe bricks are of the moſt ſolid texture of any I ever ſaw; and have preſerved the ſharpneſs of their edges, and ſmoothneſs of their ſurfaces, through a ſeries of ages. The ſituation of Gour was highly convenient for the capital of Bengal and Bahar, as united under one government: being nearly centrical with reſpect to the populous parts of thoſe provinces; and near the junction of the principal rivers that compoſe that extraordinary inland navigation, for which thoſe provinces are famed: and moreover, ſecured by the Ganges and other rivers, on the only quarter from which Bengal has any cauſe for apprehenſion.

Tandah, or Tanrah, (called ſometimes Chawaſpour Tanda, from the original name of the diſtrict in which it was ſituated) was for a ſhort time in the reign of Shere Shaw, in about 1540, the capital of Bengal, and became the eſtabliſhed capital under Acbar in about 1580. It is ſituated very near to the ſite of Gour, on the road leading from it to Rajemal. There is little remaining of this place, ſave the rampart; nor do we know for certain when it was deſerted. In 1659, it was the capital of Bengal, when that ſoubah was reduced under Aurungzebe: and Rajemal, Dacca, and Moorſhedabad, appear to have ſucceſſively become the capital, after Tanda.

Pundua, or Purruah, mentioned as a royal reſidence in Bengal, in the year 1353 *, is about 7 miles to the north of Mauldah, and 10 from the neareſt part of Gour. Many of its ruins yet remain; particularly the Addeenah moſque, and the pavement of a very long ſtreet, which lies in the line of the road leading from Mauldah to Dinagepour.

* Dow 1ſt. 340.

Satgong,

Satgong, or Satagong, now an inconſiderable village on a ſmall creek of the Hoogly river, about 4 miles to the north-weſt of Hoogly, was, in 1566, and probably later, a large trading city, in which the European traders had their factories in Bengal. At that time Satgong river was capable of bearing ſmall veſſels; and, I ſuſpect, that its then courſe, after paſſing Satgong, was by way of Adaumpour, Omptah, and Tamlook; and that the river called the old Ganges, was a part of its courſe, and received that name, while the circumſtance of the change was freſh in the memory of the people. The appearance of the country between Satgong and Tamlook, countenances ſuch an opinion.

Sonergong, or Sunnergaum, was a large city, and the provincial capital of the eaſtern diviſion of Bengal, before Dacca was built; but it is now dwindled to a village. It is ſituated on one of the branches of the Burrampooter, about 13 miles ſouth-eaſt from Dacca; and was famous for a manufacture of fine cotton cloths.

In ſome ancient maps, and books of travels, we meet with a city named *Bengalla*; but no traces of ſuch a place now exiſt. It is deſcribed as being near the eaſtern mouth of the Ganges: and I conceive that the ſite of it has been carried away by the river: as in my remembrance a vaſt tract of land has diſappeared thereabouts. Bengallah, appears to have been in exiſtence during the early part of the laſt century.

It does not fall within the compaſs of my deſign to deſcribe all the principal cities of Hindooſtan, which alone would require a large volume; but it may not be amiſs to point out their general poſitions, and the relation in which they ſtand to the ſeveral provinces or ſtates, in which they are ſituated. Moſt of the capital cities are already deſcribed as they were in the laſt century, in the books of travels of Thevenot, Bernier, Tavernier, P. de la Valle, &c. which are in every body's hands. Moſt of theſe cities, have, I believe, very conſiderably declined ſince that time; owing to the almoſt continual wars and revolutions, that have taken place, ſince

the death of Aurengzebe; and which were ſufficient to deſolate any country that did not produce almoſt ſpontaneouſly; and of courſe, where the deficiency of population is quickly replaced.

Within the tract diſcuſſed in the preſent ſection, the principal cities are, Calcutta, Moorſhedabad, Patna, Dacca, Coſſimbazar, Mauldah, and Hoogly, within the Bengal provinces: Benares, within the diſtrict of the ſame name, under the Britiſh ſovereignty: and Lucknow, Fyzabad, Oude, Jionpour, Allahabad, Bereilly, and Corah, ſubject to the Nabob of Oude, our Ally: and Agra, late in the poſſeſſion of *Nudjuff Cawn*. Generally ſpeaking, the deſcription of one Indian city, is a deſcription of all; they being all built on one plan, with exceeding narrow, confined, and crooked ſtreets; with an incredible number of reſervoirs and ponds, and a great many gardens, interſperſed. A few of the ſtreets are paved with brick. The houſes are variouſly built: ſome of brick, others with mud, and a ſtill greater proportion with bamboos and mats: and theſe different kinds of fabricks ſtanding intermixed with each other, form a motley appearance: thoſe of the latter kinds are invariably of one ſtory, and covered with thatch. Thoſe of brick, ſeldom exceed two floors, and have flat, terraced roofs. The two former claſſes far outnumber the laſt, which are often ſo thinly ſcattered, that fires, which often happen, do not, ſometimes, meet with the obſtruction of a brick houſe through a whole ſtreet.

Calcutta, is in part, an exception to this rule of building; for there, the quarter inhabited by the Engliſh, is compoſed entirely of brick buildings, many of which have more the appearance of palaces than of private houſes: but the remainder of the city, and by much the greateſt part, is built as I have deſcribed the cities in general to be. Within theſe 20 or 25 years, Calcutta has been wonderfully improved both in appearance, and in the ſalubrity of its air: for the ſtreets have been properly drained, and the ponds filled up; thereby removing a vaſt ſurface of ſtagnant water, the exhalations from which were particularly hurtful. Calcutta is well

5 known

known to be the emporium of Bengal, and the ſeat of the Governor General of India. It is a very extenſive and populous city, being ſuppoſed at preſent to contain at leaſt 500,000 inhabitants. Its local ſituation is not fortunate; for it has ſome extenſive muddy lakes, and a vaſt foreſt, cloſe to it. It is remarkable, that the Engliſh have been more inattentive than other European nations, to the natural advantages of ſituation, in their foreign ſettlements. Calcutta is ſituated on the weſtern arm of the Ganges, at about 100 miles from the ſea; and the river is navigable up to the town, for the largeſt ſhips that viſit India. It is a modern city, having riſen on the ſite of the village of Govindpour, about 90 years ago. It has a citadel, ſuperior in every point, as it regards ſtrength, and correctneſs of deſign, to any fortreſs in India: but on too extenſive a ſcale to anſwer the uſeful purpoſe intended, that of holding a poſt in caſe of extremity; ſince the number of troops required for a proper garriſon for it, could keep the field. It was begun immediately after the victory at Plaſſey, which inſured to the Britiſh, an unlimited influence in Bengal: and the intention of Clive was to render it as permanent as poſſible, by ſecuring a tenable poſt at all times. Clive, however, had no foreſight of the vaſt expence attending it, which perhaps may have been equal to two millions ſterling.

Hoogly is a ſmall, but ancient city on the ſame river as Calcutta, though on the oppoſite ſide; and about 26 miles above it. In the time of the Mohamedan government, it was the *Bunder* or Port of the weſtern arm of the Ganges; where the cuſtoms or duties on merchandiſe, were collected. The French, Dutch, Danes, and Portugueſe, have each of them a town and factory on this part of the river, and between Hoogly and Calcutta; and all within the extent of 10 miles, along the river. The French ſettlement of Chandernagore, and the Dutch one of Chinſura, are both very neat and pretty large towns; and each of them on a better ſite than Calcutta.

Moorſhedabad, ſituated alſo on the weſtern arm of the Ganges which is there very low in the dry ſeaſon, is about 120 miles above Calcutta. It was the capital of the Bengal provinces until the eſtabliſhment of the Britiſh power: and even long after, it was the ſeat of the Collector general of the revenues; being a more centrical ſituation than Calcutta. It is very large, but ill built; and in its plan ſo very irregular, that it is difficult to eſtimate the quantity of ground it ſtands on. It is a modern city, and does not contain any magnificent buildings, either public or private: nor was it ever fortified except by an occaſional rampart thrown up round it, on the Mahratta invaſion in 1742 *. This city is now decaying, eſpecially ſince the removal of the Board of Revenue to Calcutta, in 1771.

Coſſimbazar is a ſmall city, nearly adjacent to Moorſhedabad, and was at all times the place of reſidence of the different European factors; this being the centre of their trade.

Mauldah is a pretty neat city, not far removed from the north bank of the Ganges, and on a river that communicates with it. It aroſe out of the ruins of Gour, which are in its neighbourhood. In point of general ſituation, it is about 70 miles to the north of Moorſhedabad. This, as well as Coſſimbazar, is a place of trade, and in particular produces much ſilk

Rajemal lies on the weſt bank of the Ganges nearly in the parallel of Mauldah, and about 20 miles from it; at the foot of the chain of hills which projects into the river, at Siclygully and Terriagully. It is in a ruinous ſtate, although the reſidence of the Viceroy not 130 years ago; and has hardly the population of an ordinary market town, at preſent. Its ſituation is romantic, but not pleaſant: for in Hindooſtan, the hills and eminences being always covered with wood, that beautiful ſwelling of the ground, which is ſo juſtly admired in European landſcapes, is loſt; and the fancy is

* See Introduction.

preſented

preſented at beſt with nothing beyond a wild ſcene: which can only be reliſhed by being contraſted with ſoft and beautiful ones. M. D'Anville conſidered Rajemal as being ſeated at the head of the Delta of the Ganges: but it is more than 30 miles above it.

Dacca is ſituated in the eaſtern quarter of Bengal, and beyond the principal ſtream of the Ganges, although a very capital branch of it runs under it. Few ſituations are better calculated for an inland emporium of trade, than this; as the Dacca river communicates with all the other inland navigations; and that not by a circuitous, but by a direct communication: as may be ſeen by the plan of its environs, in the Bengal Atlas. It ſucceeded Sonergong, as the provincial capital of this quarter; and is the third city of Bengal, in point of extent and population. It has a vaſt trade in muſlins; and manufactures the moſt delicate ones, among thoſe that are ſo much ſought after in Europe: and the cotton is produced within the province. Dacca has in its turn been the capital of Bengal: and that within the preſent century. There are the remains of a very ſtrong fortreſs in it; and within theſe few years there was near it, a cannon of extraordinary weight and dimenſions *: but it has ſince fallen into the river, together with the bank on which it reſted.

Dacca is ſituated about 100 miles above the mouth of the Ganges, and 180 by the road from Calcutta. The country round it lying low, and being always covered with verdure during the dry months,

* As it may gratify the curioſity of ſome of my readers, I have here inſerted the dimenſions and weight of this gun. I took the meaſures very carefully throughout, and calculated each part ſeparately. It was made of hammered iron; it being an immenſe tube formed of 14 bars, with rings of 2 or 3 inches wide driven over them, and hammered down into a ſmooth ſurface; ſo that its appearance was equal to that of the beſt executed piece of braſs ordnance, although its proportions were faulty.

	feet	inches
Whole length - - - - -	22 feet	10½ inches.
Diameter at the breech - -	3	3
———— 4 foot from the muzzle	2	10
———— the muzzle - -	2	2½
———— of the bore - - -	1	3⅛

The gun contained 234,413 cubic inches of wrought iron: and conſequently weighed 64,814 pounds avoirdupoize: or about the weight of eleven 32 pounders. Weight of an iron ſhot for the gun 465 pounds.

it

it is not ſubject to ſuch violent heats as Moorſhedabad, Patna, and other places.

Patna is the chief city of Bahar, and is a very extenſive and populous city, built along the ſouthern bank of the Ganges, about 400 miles from Calcutta, and 500 from the mouth of the river. Having been often the ſeat of war, it is fortified in the Indian manner with a wall and a ſmall citadel. It is a place of very conſiderable trade. Moſt of the ſaltpetre imported by the Eaſt India Company, is manufactured within the province of Bahar. It is a very ancient city; and probably its modern name may be derived from Pataliputra, or Patelpoot-her; which we have ſuppoſed above to be the ancient Palibothra.

Benares is the chief city of the diſtrict commonly known by that name (and which conſiſts of the circars of Benares, Jionpour, Chunar, and Gazypour) but is more celebrated as the ancient ſeat of Braminical learning, than on any other account; although it be a fine city, and very rich and populous, and the moſt compactly built of any. It is built along the north bank of the Ganges, and is diſtant from Calcutta, by the road, about 460 miles. Its ancient name was Kaſi: but there are no notices concerning it, in the works of the ançient geographers. I think, if it had exiſted during the time of the Syrian Ambaſſadors, Pliny would have noticed it, as he has done Methora (Matura) and Cliſobara, which lay near the Jumna river.

Allahabad is ſeated at the point of confluence of the two great rivers Ganges and Jumna, and ſucceeded to Piyaug. Acbar founded the preſent city, which he intended as a place of arms, as its ſituation is very important both as it reſpects the navigation of the two rivers, and the country of the Doab, behind it. Allahabad is about 820 miles above the mouth of the Ganges, and 550 by land from Calcutta. It belongs to the Nabob of Oude, but its fortifications will hardly reſiſt the battering of a field piece.

Luck-

Lucknow is the present capital of Oude, having superseded the late capital Fyzabad, on the occasion of the Rohilla and other conquests; which left it rather in a corner of the kingdom, as it is now constituted, and in that corner the farthest removed from the scene of business. It is a very ancient city, and moderately extensive: but after the short account given above of the nature of the ordinary buildings, a city may very suddenly be augmented on its becoming a royal residence: and Fyzabad of course may have declined. A small river, named the Goomty, runs under Lucknow, and communicates with the Ganges; but this last river is at least 43 miles to the S W of Lucknow. With respect to Calcutta, it is distant by the nearest road, 650 miles; and about 280 from Delhi. All is one vast plain from Lucknow to the mouth of the Ganges.

Fyzabad lies on the river Gogra, a very large river from Thibet, and is situated about 80 miles to the eastward of Lucknow, and 560 from Calcutta. It is a very large city, and nearly adjoining to it, is the very ancient city of Oude or Ajudiah. Fyzabad was the capital of the Nabob of Oude, till within these few years; but it was an inconvenient situation, even before the Rohilla conquest.

Jionpour is a small city on the Goomty river, about 40 miles to the N W of Benares, and in the road from that city to Fyzabad.

Corah, or Corah-Jehenabad is a small city in the Doab or country between the two rivers Ganges and Jumnah. Both this city and Jionpour, are within the Nabob of Oude's dominions.

Bereilly is the capital of Rohilcund, which was added to the dominions of Oude, in the year 1774. It is but a small city and situated about half way between Lucknow and Delhi.

The city of Agra *, as I have said before, is situated at the western extremity of the tract under discussion; and on the south bank of the Jumna river, which is very seldom fordable. This

* Latitude 27° 15′, longitude 78° 29′ by Claud Boudier: 78° 28′ in the map.

city

city appears to have been during the late century, and in the beginning of the preſent, the moſt ſplendid of all the Indian cities; and at this time exhibits the moſt magnificent ruins. About the year 1566, the Emperor Acbar, liking its ſituation, made it his capital, and gave his name to it: ſince which, it is often named Acbar-abad. It was then a ſmall fortified town; but it ſoon ſprung up to an extenſive well built city, regularly fortified according to the Indian method, and with a fine citadel of red free-ſtone. Perhaps it has ſeldom happened, that a city of ſuch great extent and magnificence has declined ſo rapidly. If Ptolemy, by Agara, meant Agra, it is certainly a place of great antiquity; but he has not placed Agara in the ſituation where we ſhould look for Agra. Biana or Baniana ſeems to have immediately preceded it, as the capital of the province now called Agra, and which was originally included in the kingdom of Canoge.

SECTION III.

The Tract occupied by the Course of the River INDUS *and its principal Branches: with the adjacent Countries on the South and East, as far as the Cities of* AGRA, *and* AGIMERE; *and the River* PUDDAR.

THIS part comprehends in general the ſoubahs or provinces of Lahore, Moultan, and Sindy; with the northern parts of Agimere, and the weſtern parts of Agra and Delhi: and is about 700 B. miles in length from N E to S W; and from 550 to 350 in width. It is bounded on the eaſt by Mount Sewalic, and by an imaginary line drawn from Hurdwar to Agra; on the ſouth by the great road leading from Agra to Agimere, and by the river Puddar; on the weſt by the Arabian ſea, and Perſia; and on the north by Cabul and Caſhmere.

Delhi, the nominal capital of Hindooſtan at preſent, and the actual capital during the greateſt part of the time ſince the Mohamedan conqueſt, has its poſition determined by obſervations of latitude and longitude; which obſervations accord both with the maps, and with the popular eſtimation of its diſtance, from the neareſt points in the ſurveyed tract, mentioned in the laſt ſection.

We firſt hear of Delhi, as the capital of Hindooſtan, about the year 1200. It is reported to have been founded by Delu *, about 300 years before our æra; and I believe ſhould properly be written

* Feriſhta. The Ayin Acbaree ſays that the ancient name of Delhi, was Inderput.

Dehly. Although a more extenſive and populous city than Agra, it was not ſo well built. Shah Jehan, grandſon of Acbar and father of Aurengzebe, made this city his reſidence, and directed it to be called Shahjehanabad; and by this kind of vanity, it happens, that moſt of the Indian cities have a plurality of names: which occaſions great confuſion, when it becomes neceſſary to trace any event to a high period of antiquity.

Delhi, which is now ſituated on the right, or weſtern bank of the Jumna, anciently ſtood on the oppoſite bank. It is difficult to aſcertain the true meaſure of extent of this city, which was ſaid to contain, during the latter part of the laſt century, two millions of inhabitants. It is certain, that the account given by Bernier, who had good opportunities of being informed, and who deſerves the greateſt credit for veracity, does not juſtify ſo high a calculation of its inhabitants. His account was indeed written in 1663, only four years after the acceſſion of Aurengzebe: and it is well known that under his reign, both the empire and capital were greatly augmented. Bernier, I ſay, eſtimated the circumference of Delhi, at three leagues only, reckoning what was within the fortifications; beſides which, he deſcribes ſeveral ſuburbs, but altogether, no extraordinary extent for a capital city in India. He deſcribes Agra as being conſiderably larger. After the plunders and maſſacres that it has been ſubject to, ſince the decline and downfall of the Mogul empire, we may expect it to be reduced very low: and accordingly, it is ſpoken of by late travellers as a city of moderate extent; and even for an Indian city, very ill built.

Claud Boudier found the latitude of Delhi to be 28° 37′; and its longitude 77° 40′. A MS. map communicated by Mr. Haſtings, and which includes ſome principal roads in the Dooab, between Furruckabad, Matura, Anopeſheer, and Delhi; gives 51 G. miles of weſting from Anopeſheer, the neareſt point in the ſurvey to Delhi; and 16 of northing: and this agrees perfectly with the obſervation of longitude, and comes within one minute of the latitude. Delhi is alſo 40 computed coſſes from Ramgaut, another

point

point in the ſurvey; but this would place it 4 miles further to the eaſt than the obſervation. It is placed according to the obſervation, and the diſtance from Anopeſheer. Beyond Delhi, weſtwards, there are no points determined mathematically, by which the length and direction of the route can be aſcertained; except the computed diſtances between places; and ſome latitudes and longitudes, taken with little preciſion, if we may judge by a compariſon of ſome of the obſervations from the ſame catalogue, with thoſe taken by Europeans. For inſtance, the latitude of Jionpour and Burhanpour are from 21 to 25 miles too far north, in the Ayin Acbaree; Oude, 35 too far north; and Delhi, 22 too far ſouth. We have therefore little reaſon to ſuppoſe that any of the others are much nearer the truth; nor is there any rule to gueſs on which ſide the error lies. The longitudes are ſtill more vague; as for inſtance:

	By the A. A.	By the Map.	Difference.
The difference of longitude between Delhi and Oude is	3° 28′	4° 48′	1° 20′
Delhi and Jionpour - -	4 28	5 13	0 45

Here the medium of the difference is 10 minutes too little, in each degree.

And again:

Delhi and Lahore - -	5° 16′	4° 53′	0° 23′
Delhi and Moultan - -	7 3	7 00	0 3

In theſe places, although the longitudes in the map are not determined with preciſion, we may ſtill perceive that the Ayin Acbaree is not exact. From ſuch kind of materials, nothing very accurate can be expected: and therefore I have never had recourſe to them but in a very few caſes, where every other ſpecies of information has failed.

K 2 The

The conſtruction of the geography of the tract ſpoken of in this ſection, turns chiefly on eight *primary ſtations*, or points; and which will be diſcuſſed in order: they are, Lahore, Sirhind, Moultan, Attock, Toulomba, Batnir, Jummoo, and Bullauſpour.

The firſt point beyond Delhi that I have any kind of *data* for fixing the poſition of, is Lahore, a capital city in the Panjab *, and formerly a royal reſidence. I have ſeveral itineraries and memorandums of the road between the two places; but ſome are defective through omiſſions, and others too obſcure to be underſtood or followed. Tavernier, for inſtance, omits a whole ſtage of 15 coſſes, between Furridabad and Sultanpour; which added to his original number 191, make 206 coſſes. John Steel in his itinerary (1614) reckons only 189: but though I cannot trace any omiſſions in it, the account is confuſed and obſcure; and therefore I have given it up. A map of the Panjab, obligingly communicated by Colonel John Murray, Commiſſary General to the army in Bengal, gives the diſtance at 205 coſſes, or 293 G. miles.

Tavernier's account corrected - -	206
Thevenot's - - - - -	200
Murray's - - - - -	205

The medium of which is $203\frac{2}{3}$; or, at 42 coſſes to a degree, 291 G. miles. I have allowed 290, and taken its latitude at 31°; ſo that its longitude will be 72° 47′, or 4° 53′ weſt of Delhi. The Ayin Acbaree makes the longitude 5° 16′, or 23′ more. Its latitude is variouſly repreſented: by the Ayin Acbaree 31° 50′; by Thevenot, the ſame; in an Indian table 31°; by a MS. itinerary † (dated 1662) 30° 30′; and by Col. Murray's map 31° 15′.

* Panjab, or *the country of the five rivers*, is a natural diviſion of the country contained between the 5 eaſtern branches of the Indus.

† This itinerary was obligingly communicated by the late Mr. George Perry, and appears to have been kept by a miſſionary who travelled from Delhi to Perſia, by way of the Panjab and Sindy. It ſhould be obſerved, that all the latitudes in it are too far ſouth. The latitude of Agra is ſet down at 26° 45′, though its true latitude is 27° 15′. And Moultan in 29° 32′, and Tatta in 24° 20′; which places are commonly taken at 29° 52′, and 24° 40′.

Lahore

Lahore is a very important point in this conſtruction, as it regulates the poſitions of all the places between Delhi and the Indus; and therefore we have reaſon to regret that we have no better authority for fixing it.

Lahore is a place of high antiquity, and was the reſidence of the firſt Mahomedan conquerors of Hindooſtan, before they had eſtabliſhed themſelves in the central parts of the country. It owed its modern improvements, however, to Humaioon, the father of Acbar, who made it his reſidence during a part of his troubleſome reign. Thevenot ſays that, including the ſuburbs, it was 3 leagues in length at that period: and, when he ſaw it, about the year 1665, the city itſelf was above a league in extent. Jehanguire, ſon of Acbar, allowed the Portugueſe to build a church there; and ſome of its furniture remained at the time of Thevenot's viſit.

The Rauvee (the ancient Hydraotes) on which it is ſituated, is a noble river; and by its navigable courſe, has a communication with the Indus, and all its branches. The province, of which Lahore is the capital, is oftner named Panjab, than Lahore: however, Panjab being applied to a natural diviſion of country, is applicable alſo, to part of Moultan. It is very extenſive, and remarkably fertile; affording, in addition to all the neceſſaries of life, wine, ſugars, and cotton wool; the laſt of which ſupplied the manufactories of the province. There are alſo in the tract between the Indus and Chelum, (or Behut) ſalt mines, wonderfully productive; and affording fragments of rock ſalt, hard enough to be formed into veſſels, &c. Gold (according to the Ayin Acbaree) was found in the channels of its rivers; and the ſame is related of thoſe of Kemaoon, which proceed from the ſame ridge of mountains. Ice is brought from the northern mountains, to Lahore, and ſold there all the year. The famous avenue of ſhady trees, ſo much ſpoken of, by the early Indian travellers, began at Lahore, and extended to Agra, near 500 Engliſh miles. Lahore is now the capital of the Seiks,

a new

a new power, whofe name, even as a fect, was hardly known, until the rapid decline of the Mogul's empire, in the prefent century.

Sirhind is a city of great antiquity, and lies about midway between Delhi and Lahore. Tavernier reckons it 105 coffes from Delhi; and Steel, 99. I have placed it in its proportion of the whole diftance between Delhi and Lahore, which is 103 coffes, or about 147 G. miles. Col. Murray's map gives 108 coffes. Not having the latitude of Sirhind, and the line on which its parallel depends being near 300 miles in length, much muft be left to chance, as to its accuracy. It happens, however, that no obftacles prefent themfelves between Delhi and Lahore, to give any confiderable elbow or bend, to any part of the road (fee page 6); which is therefore, generally fpeaking, very ftraight; and only making a fmall bend northwards, in the neighbourhood of the Jumna river. Sirhind ftands in the map, in lat. 29° 55′, lon. 75° 15′.

I find by Condamine's travels in Italy, that the art of weaving filk was brought back to Conftantinople in the fixteenth century, by the monks who returned from Sirhind (or *Serinde* according to him). For although the art was brought into weftern Europe, under the Roman Emperors, it had again been loft during the confufions that attended the fubverfion of the weftern empire.

It is worthy of remark, alfo, that Procopius takes notice, that filk was brought from *Serinda*, a country in India, in the time of Juftinian (in the fixth century). The reader is apprized, that filk, together with the Latin name of it, is underftood to have been brought from *Seres* or *Serica* (a country of upper Afia, bordering on the N W of the Chinefe wall). This was Pliny's idea: how juft, I know not. The Ayin Acbaree takes no notice of any manufactures of filk at Sirhind: it only calls it a famous city (in the fixteenth century).

Between Delhi and Sirhind are very extenfive plains, within which are fituated the towns of Panniput, and Carnawl, famous for great battles, both in ancient and modern times. The reafon

of

of it, is obvioufly, the nature of the country, between it and Delhi; for it is a vaft plain, fituated at the mouth of a pafs; for fuch the country immediately on the weft of Delhi may be confidered to be, fhut up by the mountainous and clofe country of Mewat and Agimere on the one hand, and by the Jumna river on the other: and whether Delhi, Agra, or Canoge, was the capital, this was the road to it from Tartary and Perfia, the original countries of the conquerors of Hindooftan. The courfe of the Jumna, above Delhi, is determined in the map by the direction of the road to Sirhind; Kungipara, near that river, being placed in reference to Carnawl; from whence the river bends (according to the MS. maps) towards the N E to Sehauranpour and Nen. Mr. Forfter, who croffed it in his way from Loldong to Jummoo, eftimated the diftance between the Ganges and Jumna at about 40 coffes, in a northwefterly direction. The place of the fource of the Jumna, we are ignorant of; but it would appear to be remote, even from the place where he croffed it within the mountains; for he found it a large river.

The upper part of the Doab *, or tract of land between the Ganges and Jumna rivers, has its geography from feveral MS. maps; and a few of the pofitions are from Sherefeddin's hiftory of Tamerlane, tranflated by M. de la Croix.

Between Carnawl and Sirhind, are found in thefe MS. maps, three ftreams or rivers, croffing the great road. Two of them are the Caggar (or Kenker) and the Surfooty (or Serefwatty) and the third has no name in the maps. The firft is taken notice of in the Ayin Acbaree, as one of the leffer ftreams in the foubah of Delhi, and as paffing on the weft of Tannafar, a celebrated place of Hindoo worfhip. The fecond paffes between Umballa and Sirhind; and the third between the two others. It is probable, from circumftances, that there may be others, although deemed too infignificant

* See an explanation of the term Dooab, in the Introduction.

to merit notice. All theſe ſtreams run to the ſouth, or ſouth-weſt; and probably mix either with the Indus, or Puddar: though I formerly ſuppoſed them to run to the S E into the Jumna. I had alſo, with M. D'Anville, ſuppoſed the Caggar to be the *Heſudrus* of Pliny, ſituated half way between the *Hyphaſis* and *Jomanes:* but having now diſcovered the Beyah to be the river meant by the ancient Hyphaſis, there can be no difficulty in pronouncing the Setlege or Suttuluz, to be the Heſudrus, as it anſwers in point of proportional diſtance.

I cannot find what river is meant by the Jidger, often mentioned by Feriſhta, unleſs it be a branch of the Caggar; which river, as well as the Surſooty, has its ſource in the Sewalic mountains, between Delhi and Sirhind; taking its courſe by Semanah and Sunnam. The Surſooty, we learn by the MS. maps, after paſſing by Tannaſar, Surſa or Surſutti, &c. joins the Caggar.

Near to Tannaſar and the lake Koorkhet, places of Hindoo worſhip, is the ſite of the ancient city of Huſtnapour, and of the war of the MAHABARUT (an epiſode of which has been lately tranſlated from the original Sanſcrit, by Mr. Wilkins) ſo that this ground, which is not far from Carnawl and Panniput, has been the ſcene of war in all ages; poetically, as well as hiſtorically. The countries between Delhi, and the Panjab, being ſcantily ſupplied with water, the Emperor Feroſe III. undertook the noble as well as uſeful taſk of ſupplying it better, and at the ſame time meant to apply the water ſo furniſhed to the purpoſes of navigation. Dow, (Vol. 1ſt. p. 327) tranſlates Feriſhta thus: "In the year 1355, Feroſe "marched to Debalpour, where he made a canal 100 miles in "length, from the Suttuluz to the Jidger. In the following year, "between the hills of Mendouli and Sirmore, he cut a channel from "the Jumna, which he divided into ſeven ſtreams; one of which "he brought to Haſſi, and from thence to Beraiſen, where he built "a ſtrong caſtle, calling it by his own name. He drew ſoon after, "a canal from the Caggar, paſſing by the walls of Sirſutti, and

"joined

" joined it to the river of Kera; upon which he built a city, named
" after him, Ferofeabad. This city he watered with another canal
" from the Jumna. Thefe public works were of prodigious advantage
" to the adjacent countries, by fupplying them with water for their
" lands, and with a commodious water-carriage from place to place."
We learn alfo from the Ayin Acbaree, (Vol. II. p. 107 Englifh tranflation) that Ferofe founded the city of Hiffar, (called alfo Hiffar-Feroozeh) and dug a canal from the Jumna to it. And we find, moreover, that the canal from the Jumna at Kungiparah, to Delhi, was the work of Ferofe: and is probably one of the feven channels mentioned by Ferifhta. I apprehend then, that Hiffar, or Hiffar-Feroozeh, of the Ayin Acbaree, is the fame with the Ferofabad of Ferifhta. But poffibly, Ferofe might only embellifh and increafe the fortifications of Hiffar, and then give his name to it; a practice very common in Hindooftan, to the utter confufion of hiftoric records, and no lefs injuftice to the original founders. The town of Surfutti, by the authority of the MS. maps and other circumftances, I place on the river of that name between Tannafar and Kythil (or Kuteil); and Haffi or Hanfi, on the weft or S W of Kythil. Hiffar, or Ferofeabad, will occupy a place ftill further to the S W; and in this pofition, will be about 75 coffes from Delhi, in a weft, or weft-northwardly direction; and about 100 miles from the Setlege or Suttuluz, at the neareft part of Debalpour, from whence the canal was faid to be drawn. The rivulet of Kerah, I cannot trace, any more than the Jidger: but I think it will appear as clear to the reader, as to myfelf, when the text, and the different pofitions in the map, are confidered, that thefe different canals had for their immediate object, the junction of the Setlege and Jumna rivers; and remotely, that of the Indus and Ganges; although they do not allow us to comprehend the whole fcope of Ferofe's plan of inland navigation. By a flight infpection of the map, it will appear that this project would, if the ground admitted of its being fuccefsfully put into execution, be one of the greateft under-

 takings

takings of the kind that ever was projected; that of cutting through the iſthmus of Suez, only excepted. We ſhould then have ſeen two capital rivers, which traverſe a large part of the continent of Aſia; which enter the ſea at 1500 B. miles aſunder; and which ſtretch out their arms as it were, to meet each other; united by art, ſo as to form an uninterrupted inland navigation from Cabul to Aſſam! I take it for granted that this canal was never completed, otherwiſe we ſhould have heard more of it, as we have of the canals leading from the Jumna. The diſtance between the navigable parts of the Jumna and Setlege, is not 120 B. miles, direct.

Again, (in page 329 of Dow's 1ſt volume) it is ſaid that Feroſe turned the courſe of a large rivulet which fell into the Setlege, from Hirdar in the province of Sirhind, into the Selima, a ſmaller rivulet that ran ſouthwards towards Sunnam (a place 14 G. miles S W of Semanah). Improvements of this kind, occur ſo ſeldom in the hiſtory of Hindooſtan, where barbarous conqueſts and maſſacres, are the principal ſubject, that they are dwelt on with pleaſure, whenever they appear: and we have only to regret on the preſent occaſion, that the deſcription of them is ſo obſcure.

Semanah (or Sammanah) has its diſtance given from Panniput, at 52 coſſes, in Sherefeddin; but its diſtance from Sirhind is inferred from the line of Tamerlane's march from Batnir to Panniput. I had placed it 43½ G. miles in a S by E ½ E direction from Sirhind: and find it in Col. Murray's map nearly the ſame diſtance (44 miles) but on a S by W bearing. It is included in the circar of Sirhind: and the circar of Hiſſar, lies immediately to the ſouth of it. On the weſt and S W of Hiſſar and Semanah, our knowledge, both geographical and political, is very much confined. Timur's (or Tamerlane's) route from Batnir, the courſe of the Caggar river, and the road from Agimere to Jeſſelmere, is all that we have towards filling up ſo large a void. The firſt is from Sherefeddin; the others from Mr. Haſtings's, and Col. Popham's MS. maps.

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The common boundaries of Agimere, Delhi, and Moultan, we have no means of aſcertaining: nor is the Ayin Acbaree particular enough on this ſubject, to lend any aſſiſtance towards it.

Mewat, or the hilly tract lying on the weſt of the Jumna, between the parallels of Agra and Delhi, as well as the northern and eaſtern parts of Agimere, which are mountainous alſo, have their geography much improved by the MS. maps communicated by Mr. Haſtings, and Col. Popham. There is little to be ſaid on the ſubject of the conſtruction of theſe parts. Agimere, which is the primary point that determines the parallel and ſcale of the weſtern parts, will be diſcuſſed in the next ſection, to which it properly belongs: the poſitions on the north and eaſt of it, are taken chiefly from the MSS. juſt mentioned.

Jaepour or Jaynagur, the capital of one of the Rajpoot Princes in the eaſtern quarter of Agimere, has its longitude given by Claud Boudier, at 76° 9′, or 2° 19′ weſt from the city of Agra. All the MS. maps that I have conſulted, place it very differently: and, I find, I cannot allow a greater difference than 1° 55′, without rejecting the ſcales of all the MS. maps; which, as they are formed from the difference of latitude, would be abſurd. Perhaps the numbers in Claud Boudier's table, are not right: M. D'Anville has them at 76° 5′ in the Eclairciſſemens, which is ſtill wider from probability.

It appears by M. D'Anville, that the Rajah of Jaepour (by name Jeſſing) had erected two obſervatories, one in his newly built capital of Jaepour (which is about a league from Umbeer or Ambeer, the ancient capital) the other in one of the ſuburbs of Delhi. Father Claud Boudier, at the Rajah's requeſt viſited the former of theſe obſervatories about the year 1732: and I think it probable that we are indebted to the Rajah's aſſiſtance for ſome others of the obſervations made by Claud Boudier; particularly thoſe at Agra and Delhi. The latitude of Jaepour is 26° 56′; and M. D'Anville

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in his *Antiquité de L'Inde* reckons it 50 leagues from Delhi, which accords well with my idea of the diſtance between them.

The MS. maps which I have ſo repeatedly mentioned as being communicated by Mr. Haſtings and Col. Popham, together with others formerly in the poſſeſſion of Col. Muir, and ſince his death *, obligingly communicated by my friend Mr. Benſley, of the Eaſt India Direction, are corrected in bearing and ſcale by the primary points of Agra, Delhi, and Agimere; but only a very trifling alteration was required. It may be obſerved, in reſpect of the new matter contained in theſe communications, that a great number of places appear, that were familiar to us, as well in the hiſtory of former times, as in the account of recent tranſactions; but which we could not, heretofore, refer even to any general ſituation in a map. Still however, much is wanting, to render in any degree perfect, the geography of the tract in queſtion, both as to mathematical exactneſs, and to relative deſcription: in particular the latitudes and longitudes of Lahore, Sirhind, Attock, Moultan, Batnir, Agimere, Caſhmere, Jummoo, Sehaurunpour, &c.; together with the intermediate roads and particulars of the face of the country, and the courſe of the river Indus. Until theſe are procured, we muſt be content to remain in ignorance concerning many curious particulars of Indian geography; and ſatisfy ourſelves with having the ſituations of places that are the moſt intereſting, either from having been the ſubjects of hiſtory, or as being connected with the politics of the preſent times.

The next place in point of conſequence to the conſtruction of this part of the map, as it regulates many of the northern poſitions, is Attock, a city and fortreſs on the eaſt bank of the Indus, and built by Acbar in the year 1581. We ſhall have occaſion to ſpeak on the ſubject of its hiſtorical importance, hereafter. The poſition of

* It is probable that the ſevere indiſpoſition to which Col. Muir was conſtantly ſubject, from the moment of his arrival, to the time of his death, left him no leiſure to recollect that ſuch materials were in his poſſeſſion. This excellent officer, and moſt worthy character, died in 1786.

of this place, geographically, can only be regulated by the apparent bearings from Lahore and Moultan, in a Persian map of the Panjab, together with the distances collected from the different accounts in the same map; in itineraries; and in the Ayin Acbaree. The latter gives for the breadth of the Panjab, from Ludhana to Attock, reckoning from river to river, on the line of the roads between them 185 cosses: and as two of these roads make a considerable angle with each other, I allow the distance on a straight line to be only 180 cosses; or 259 G. miles. Some accounts that I have seen of the number of cosses, are too much exaggerated, to be depended on, or noticed; and I rely on the Ayin Acbaree, in preference to them. The MS. map communicated by Col. Murray, gives 181 cosses, or 260½ G. miles, for the whole distance: but although it comes so very near to my calculation in the general account, it differs in the measure of each particular Doabah, or space, between two adjoining rivers. Attock is placed accordingly, 259 G. miles from Ludhana, on the bearing from Lahore, as nearly as it could be collected from the Persian map: and these *data* give its latitude at 32° 27′ *; lon. 70° 36′. Col. Murray's map places it in lat. 32° 25′.

Moultan, supposed, with great appearance of reason, to be the modern capital of the country, which was designed by the historians of Alexander, under the name of *Malli*, is 90 cosses from Lahore (south-westward) according to the Persian map; 120 according to Thevenot's account; and 110 in Col. Murray's map. The Ayin Acbaree takes no notice of the distance between them; but gives the latitude and longitude of both. The latitude is also given by Thevenot, and by the Missionary's itinerary; and when allowance is made for the latter, in the same proportion as it differed from the true latitude at Agra, the three observations differ among themselves 22 minutes. That is, the Ayin Acbaree gives 29° 52′, Thevenot 29° 40′, and the itinerary 29° 32′, which with the addi-

* Ptolemy's latitude of Taxila, which I suppose to be nearly on the site of Attock, is 32° 20′.

tion

tion of 30′ (fee note, page 68) gives 30° 2′. I have placed it in 29° 52′; which, on the aforefaid diftance of 90 coffes from Lahore, gives 70° 40′ for its longitude; or 7° weft from Delhi. The Ayin Acbaree makes it 7° 3′: which agrees very nearly with the 90 coffes in the Perfian map. This diftance alfo accords with the bearings in the fame map; where Moultan ftands S a very little E from Attock, and about 60° to the weftward of S from Lahore. And Col. Murray's map has nearly the fame bearings. Thefe three primary points of Lahore, Attock, and Moultan, vaguely as they may appear to be afcertained, are the foundation on which the fcale, and relative parts of the whole Panjab country depend.

Thevenot defcribes Moultan as a city of fmall extent for the capital of a viceroyalty, but ftrongly fortified, and having a Hindoo pagoda of great celebrity. The Ayin Acbaree reprefents it, as one of the moft ancient cities of Hindooftan. It has, or had, a great manufacture of cotton cloths; the province itfelf producing the cotton; as well as fugar, opium, galls, brimftone, &c. Thevenot defcribes the river that led to Moultan, as being partly choaked up, or fpoiled, in its channel, in his time (about 1665) and this had greatly leffened its trade. He alfo takes notice of a particular fect of Hindoos there, called *Catry*; and fays, that this is their proper country. In another place, he explains the *Catry* tribe, to mean *Rajpoots*, or warriors; that is, the *Kuttry* tribe, properly. We fhall take notice hereafter, that thefe *Catries* were the *Catheri* of Diodorus, and the *Cathei* of Arrian; with whom Alexander warred, on the borders of the *Malli*. Moultan belongs now to the Seiks, though the poffeffion of it, as well as Lahore, has been often difputed by the Abdalli.

I have not extended the large map of India further to the north, than Attock and Jummoo, becaufe it would have added confiderably to the width of it, without furnifhing any fubject, particularly interefting to modern enquiries: and the materials are no of a quality or quantity proper to correct the geography of that part, on an extended fcale. I have therefore added a map on a fmaller fcale,

in

in which the tract between the Panjab, Bochara, &c. is described; and a separate account of it will be given in the course of the Memoir.

The river called by Europeans Indus, and by the natives generally Sinde * (or Sindeh) is formed of about 10 principal streams which descend from the Persian and Tartarian mountains, on the north-east, and north-west. The Ayin Acbaree describes its source as being in Cashgur and Cashmere; by which it appears that the people of Hindoostan consider the north-east branch as the true Sinde †. From the city of Attock, in about lat. 32° 27′ downwards to Moultan, or to the conflux of the Jenaub, or Chunaub, it is commonly named the river of Attock, which in the Hindoostan language, imports *forbidden*: probably from the circumstance of its being the original boundary of Hindoostan on the north-west; and which it was unlawful for the subjects of Hindoostan to pass over, without special permission ‡. Below the city of Moultan, it is often named Soor, or Shoor, until it divides itself into a number of channels near Tatta; where the principal branch takes the name of Mehran. The river, however, when spoken of generally, is called Sinde, although particular parts of it are known by different names. The course of the Indus below Moultan, has its particulars from M. D'Anville; but the general direction of its course, is considerably more to the west, than he describes it. This is occasioned by my placing its *embouchure* so much farther west than usual, in respect of Bombay (see page 36) while the position of Moultan remains nearly as it formerly was. I observe that most of the old maps of India give the Indus much the same course as I have done.

* The name Sinde was not unknown to the Romans: *Indus incolis Sindus appellatus.* Pliny, Book VI.

† The ancients reckoned otherwise: the same Pliny continues to say, *in jugo Caucasi montis, quod vocatur Paropanisus,* ADVERSUS SOLIS ORTUM EFFUSUS.

‡ Superstition gave birth to this law, among the Hindoos: a precept nearly allied to that, which forbids their eating any food dressed on board a boat or vessel. Ferishta calls the river on which Attock is built, NILAB; *anglice*, the blue river. There is so much confusion in the Indian histories, respecting the names of the branches of the Indus, that I cannot refer the name Nilab to any particular river, unless it be another name for the Indus or Sinde.

The

The Miſſionary's itinerary beforementioned, gives the names of many places, and ſome latitudes, on the Indus. It places the fortreſs and city of Bhakor, which the Ayin Acbaree ſays, is the ancient Manſurah (though D'Anville ſays the contrary) in latitude 27° 12′; Tatta in 24° 20′; and Bunder Lawry (called alſo Bunder Laheri) in 24° 10′. All theſe, I take to be from 20 to 30 minutes too far ſouth.

Moultan is about the ſame diſtance from the ſea, as Allahabad; that is, about 800 B. miles by the courſe of the river; and our author was 21 days in dropping down with the ſtream, in the months of October and November: when the ſtrength of the land floods were abated.

The boundaries of the provinces of Moultan and Sindy on the weſt, extend a conſiderable way beyond the bank of the river; that is to ſay, from 50 to 100 miles. The country is in general flat and open from Moultan to the ſea; and the province of Tatta itſelf (the *Patale* or *Patala* of Alexander) is ſaid to reſemble Bengal, not only in the flatneſs of its ſurface, richneſs of ſoil, and periodical inundations; but alſo in the food of its inhabitants, which is chiefly rice and fiſh. The ſite of the ancient capital, Braminabad, is near Tatta; and, in the time of Acbar, ſome conſiderable ruins of it were remaining: particularly the fort, which is ſaid to have had an aſtoniſhing number of baſtions to it. Tatta is made ſynonymous to Daibul, in the Perſian tables (which were obligingly lent me by Sir William Jones, and are thoſe mentioned in his preface to Nadir Shah) where it is placed in 24° 10′. The itinerary ſays 24° 20′, and D'Anville 24° 40′. I have placed it according to its reputed diſtance from the mouth of the Sinde, which brings it to 24° 45′ *.

The country known by the name of Panjab, or that watered by the five eaſtern branches of the Indus, has been very little known to

* Pliny reckons the length of the Patale, or Delta of the Indus, at 220 Roman miles; in which he was very near the truth, it being about 210.

us in modern times, either geographically, or politically. However, it deſerves notice, if only on the ſcore of ancient hiſtory; being the ſcene of Alexander's laſt campaign, and the *ne plus ultra* of his conqueſts. Here ſome new matter offers; having before me, a map of this country drawn by a native, and preſerved in the archives of government in Hindooſtan. The names were obligingly tranſlated from the Perſian, by the late Major Davy, at the requeſt of Sir Robert Barker. The tract, of which this map ſerves as a ground work, is a ſquare of about 250 B. miles; and includes the whole ſoubah of Lahore, and a great part of Moultan proper. The points of Lahore, Attock, and Sirhind (the fixing of which, I have before given an account of) determine the ſcale of the map; the intermediate diſtances from place to place in it, being given in writing, and not by a ſcale.

I conſider this MS. as a valuable acquiſition; for it not only conveys a diſtinct idea of the courſes and names of the five rivers, which we never had before: but, with the aid of the Ayin Acbaree, ſets us right as to the identity of the rivers croſſed by Alexander, during his famous expedition into India; of which more will be ſaid hereafter.

Beſides the places found in this map, I have inſerted others, from the authority of the Ayin Acbaree; ſeveral from implied ſituations in Feriſhta; others from Sherefeddin's hiſtory of Timur *; (particularly his march from Toulomba to Adjodin and Batnir) and others from various MSS. in my poſſeſſion. The diviſion of the country, is entirely from the Ayin Acbaree.

The town of Adjodin, often mentioned by Feriſhta, and Sherefeddin, is recognized in the MS. map, by the circumſtance of its containing the tomb of Sheik Furrid, which was viſited by Timur. In the map it is called *Paukputton*; but it perfectly anſwers to the

* Tranſlated by M. de la Croix.

M poſition

poſition of Adjodin, as deſcribed by the above authors; and is a point, on the fixing of which a great many others depend.

The next river to the eaſt of the Sinde, or Attock, and the weſtmoſt of *the five rivers*, is, in modern language, called Behut, or Chelum; whoſe general courſe is nearly parallel to that of the Attock, but its bulk is leſs. This is the famous Hydaſpes of Alexander, and ſaid by the Ayin Acbaree to be anciently called *Beduſta*. It runs through Caſhmere, and was ſuppoſed by M. D'Anville (though erroneouſly) to join the Sinde at Attock. Tavernier ſeems to have led M. D'Anville into this miſtake; which has finally been the occaſion of his miſplacing, and of courſe miſnaming, all the other four rivers. The fact is, that the river which runs by Cabul, and bears the name of Attock, joins the Sinde on the weſt ſide, and in front of the city of Attock. We are obliged to Mr. George Forſter for clearing up this miſtake. He travelled that way in 1783.

The ſecond river is the Jenaub, or Chunaub; and is the Aceſines * of Alexander. The third is the Rauvee, or Hydraotes † of Alexander; on the ſouth bank of which ſtands the city of Lahore. Theſe three rivers ſucceſſively unite with each other at ſome diſtance above Moultan; and form a ſtream equal to the Indus itſelf, at the place of confluence; which is about 20 miles on the weſt of Moultan; and 50 below the mouth of the Rauvee. It is remarkable, that the Jenaub communicates its name to the confluent ſtreams in theſe times; as it did in Alexander's time, under the name of Aceſines. Its rapidity and bulk are particularly remarked by the hiſtorians of Alexander and of Timur. The fourth river is the Beyah, anciently called *Beypaſha*, and is the *Hyphaſis* or *Huphaſis* of Alexander; being the next in ſucceſſion to the *Hydraotes* or modern Rauvee: and the fifth is the Setlege, Suttuluz, or Sutluj.

* The Ayin Acbaree does not give the ancient name of the Jenaub, Ptolemy names it *Sandabalis*.

† Said by the Ayin Acbaree to be anciently named *Iyrawutty* (Mr. Gladwin's tranſlation). Mr. Boughton Rouſe tranſlates it from his copy of the Ayin Acbaree, *Iravati*.

This

This laſt river, about midway between its ſource and the Indus, receives the Beyah: after which, they do not mix their waters with the other rivers of the Panjab, but join the Indus in a ſeparate ſtream, a great way to the ſouth of Moultan; while the other three rivers paſs in a collective ſtream on the north of Moultan, and cloſe under it. Ptolemy names the laſt river of the Panjab (going eaſtward) the Zaradrus; Pliny, the Heſudrus. Arrian has the name of Saranges among his Panjab rivers; and ſays that it joins the Hyphaſis (or Beyah). The Ayin Acbaree ſays that its ancient name was *Shetooder*; from whence we may eaſily trace Setluj, or Suttuluz. Before it is joined by the Beyah, it is a very conſiderable river, and is navigable 200 miles. About 24 miles below the conflux, a ſeparation again takes place *, and four different ſtreams are formed; the northmoſt, and moſt conſiderable of which, recovers the name of Beyah; and is a deep and rapid river. The others are named Herari, Dond, and Noorney: and near Moultan, they unite again, and bear the name of Setlege, until both the ſubſtance and name are loſt in the Indus, about 80 miles, or three days ſailing †, by the courſe of the river, below the mouth of the Jenaub. It is owing to the ſeparation that takes place, after the firſt confluence of the Beyah and Setlege, I apprehend, that ſo many names are given to the latter, by modern, as well as ancient authors: which names, applied by the natives, to their reſpective branches; have, by Europeans, or others, who were ignorant of the circumſtances, been ſuppoſed to belong to one principal river only. The Perſian map of Panjab, and Sherefeddin's hiſtory of Timur, take notice of only one branch, beſides the Beyah (whence one would conclude there were only two principal ones) and this ſecond river is named Dena: poſſibly the ſame meant in the Ayin Acbaree, by the Dond.

* Ayin Acbaree. † Miſſionary's itinerary.

Although we have the dimenſions the Panjab country, in a tolerably ſatisfactory manner, from N W to S E, both in the aggregate, and in particulars; yet we have not the means of determining its breadth from north to ſouth; or rather, from Lahore to the Setlege. The firſt junction of the Beyah and Setlege, is ſtated by the Perſian map, at 63 coſſes below Ludhana; but we are left to gueſs the croſs diſtance from Lahore, unleſs what is ſaid in the ſame map, be true, that it is only 18 coſſes from Lahore to Kuſſoor, and alſo that Kuſſoor is on the banks of the Setlege: but this is highly improbable from other circumſtances; in particular, that the ſame Perſian map allows a greater ſpace between the Rauvee and Setlege, than between the Rauvee and Jenaub. Col. Murray's map places Kuſſoor on the Beyah, and not within 25 coſſes of the Setlege. The marches of Timur acroſs the lower parts of the Panjab, afford but a faint light to guide us, ſuch as day's marches; and thoſe in an oblique direction.

The authorities on which I have founded the geography of the Panjab, after fixing the primary points already diſcuſſed, are the following:

The Perſian map furniſhes a general idea of the courſes of the rivers, and theſe ſerve as a kind of ground-work, or *firſt ideas.* It alſo furniſhes ſome poſitive diſtances, and the Ayin Acbaree many others: and the march of Timur, and the Miſſionary's itinerary, furniſh ſome proportional, or comparative ones. Toulomba, or Tulmabini, which is conſidered as a *primary ſtation* or *point,* is a fortreſs on the ſouth bank of the Rauvee, 35 coſſes * above, or to the E N E of Moultan; or 5 days out of 8, of the voyage from Lahore to Moultan †: and the general direction of the river, is nearly ſtraight, in the Perſian map. By theſe helps we have a point ſettled, in reſpect of Lahore and Moultan: and from it, Timur's route may be traced acroſs the Panjab, both ways:

* Sherefeddin. † Itinerary.

the

that is, *back*, towards the Indus, the way he came; and *onward*, by the route of Batnir and Delhi. According to Sherefeddin's manner of writing, one could hardly be certain, whether Toulomba was on the ſide of the Rauvee, or the Jenaub. Feriſhta has placed it on the latter, erroneouſly; for the miſſionary came down the Rauvee, and paſſed by it; moreover giving its latitude at 15′ north of Moultan: though it is probably 25′. Timur made one day's march, from the conflux of the Chelum and Jenaub to this place; and as he did not bring the army with him, but left them croſſing the river, it may be inferred that the march was not a ſhort one; and therefore I allow 14 coſſes for it, in a S S E direction: that being the poſition of Toulomba from the conflux, by the above conſtruction. A fortreſs, not named, ſtood on the weſt ſide of the conflux; and juſt below it, Timur threw a bridge acroſs. Before Timur arrived at this place, he had marched according to Sherefeddin, 5 or 6 days along the weſtern bank of the Chelum, after he had taken the fortreſs of Sheabedin Mobarick, in an iſland of that river. This is all that we are told of the particulars of his march, from the Indus, to Toulomba. The Indus he croſſed, (I take it for granted) at, or very near, the place where Attock *now* ſtands (for it was built, more than a century and half after, by Acbar) as he came by way of Nagaz and Banow. Sherefeddin relates that he croſſed the Indus, at the place where Gelali or Geladdin (King of Charaſm) did, when he fled from Gengis Cawn; and this I think may be aſcertained to be the ſame place *. The hiſtory of Gengis † gives no ſatisfaction on this head, but repreſents Gelali as chuſing the moſt difficult part of the river for the

* My opinion is (I think) ſtrengthened by a remark in the Perſian map of Panjab. A mountain near the Indus, a very little below, and on the oppoſite ſide to Attock, is marked *Mount Yulluleah (or Gelali)* moſt probably from its being the place from whence the Emperor Gelali croſſed the Indus, in his flight from Gengis Cawn in 1221. When Timur had croſſed to the eaſt ſide of the Attock, or Indus, he was ſaid to be arrived in the *Deſert of Gelali*: therefore I have no doubt but that they both croſſed nearly at the ſame place. Gengis Cawn remained on the weſt ſide of the river.

† Written by M. de la Croix.

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rear of the field of battle, to preclude all hopes of flight, from his army: and this (if true, for Gelali himſelf ſwam acroſs) by no means contradicts my opinion; becauſe, in the neighbourhood of Attock, there muſt be many difficult places, Attock itſelf being on the only practicable part thereabouts.

But to return to Timur. After he had croſſed the Indus over a bridge of boats *, we learn that the chiefs of the mountain of Jehud or Joud came to make their ſubmiſſions to him, as Ambiſares, King of the ſame country, did to Alexander, about 1730 years before. The Jehud mountains, are thoſe which extend from Attock, eaſtward to Bember; and are a part of the territory of the mountaineers, ſometimes, deſigned under the name of Gickers, Gehkers, or Kakares.

Timur's firſt object after croſſing the Indus, being to effect a junction with his grandſon Peer Mahmud's army, which was then beſieging Moultan, he directed his courſe that way, inſtead of taking the common road to Delhi, by Rotas and Lahore. The neighbourhood of a navigable river, being a deſireable object to an army marching through a dry ſterile country, he puſhed for the neareſt part of the Behut, or Chelum river (the Hydaſpes of Alexander) where he attacked and took the fortreſs and iſland of Sheabadin. After this, he marched as has been ſaid before, along the Chelum, and croſſed that river, and the Jenaub, below their conflux; and went from thence to Toulomba, which we have juſt left. This is a conſiderable town, and a paſs of conſequence on the Rauvee river; and often occurs in Feriſhta's hiſtory of Hindooſtan. It was in the neighbourhood of this place, that Alexander made war on the Malli, or people of ancient Moultan; as will be taken notice of, in its place. Timur ſtaid here 6 days, and then proceeded with the whole army acroſs the Baree Doabah † to Shawnawaz (or

* October 11, 1398. The chronology of this event is differently ſtated: I have followed M. de la Croix's tranſlation.

† The term Doab or Doabah has been explained before. See the Index.

Sha-

Shanavas) a large and populous town near the north bank of the Beyah, after its *ſeparation* from the Setlege. Here he found more grain than his army could conſume; whence we may infer the fertility of the country, which is low and flat, and ſubject to periodical inundations like Bengal. Sherefeddin deſcribes at this place a deep lake, fortified round with a wall, and defended by 2000 men. (This reminds one ſtrongly of ſomething ſimilar at *Sangala*, which Alexander attacked, before he reached the Hyphaſis; only the hill, which was fortified round with carriages, is wanting). Shawnawaz is about 95 B. miles from Lahore; and Sangala was only 3 days march from the place where the Hydraotes, (Rauvee) was croſſed, ſuppoſing it to be at the place where Lahore ſtands.

It was ſomething more than a days march from Toulomba to Jengian, a town on the ſouth bank of the Beyah, oppoſite to, and not far from Shawnawaz. As Timur's army was 3 days in paſſing this river, ſome in barks, and others by ſwimming, it may be reckoned a conſiderable river. Its diſtance from Moultan is given at 40 coſſes *: and I have allowed 13 coſſes for its diſtance from Toulomba, in a ſouth-eaſt direction, as their diſtances from Moultan, indicate.

At Jengian, Timur ſtaid 4 days, and was joined by Peer Mahmud, who had by this time taken Moultan. Timur's next ſtation is Jehaul, two days march from Jengian, on the road to Delhi: and here he ſeparated from his grand army, which he directed to proceed by Debalpour, and to rendezvous at Semanah, a town 80 or 90 coſſes on the weſt of Delhi; while he proceeded with 10,000 horſe to Batnir or Battenize †, a ſtrong fortreſs about 70 coſſes from Jehaul, and far to the right of the Delhi road; being beyond the deſert which ſtretches along the ſouth ſide of the Setlege. He was led to this place, from reſentment, at its giving protection

* Sherefeddin. † The name of this place does not occur in the Ayin Acbaree.

to the people of Debalpour, who had maſſacred a garriſon of Peer Mahmud's: and poſſibly the great reputation it had for ſtrength, might be one inducement to undertake the ſiege of it; as Aornos, in like manner invited Alexander.

Timur, after leaving Jehaul, proceeded the firſt day to Adjodin, (of which we have ſpoken before) a town included in one of the large iſlands formed by the branches of the Setlege: and this being 3 days march from Jengian, I eſtimate the diſtance from it at 30 coſſes, or 43 G. miles. As the Delhi and Batnir roads, ſeparated at Jehaul, Adjodin may probably lie S E from it: and the whole courſe from Jengian may be taken at E S E.

At Adjodin, Timur viſited, and ſpent ſome time in devotion, at the tomb of Sheik Furrid (ſee page 81) and then ſet forward for Batnir; which is ſtated by Sherefeddin at 60 coſſes from Adjodin. This may be reckoned 85½ G. miles: and the diſtance from Batnir to Semanah, appears to be 8 days march, in which he was ſometimes delayed by his military operations; yet having a light army, it may be ſuppoſed that he marched 85 coſſes in the 8 days *. And from Semanah to Panniput, the number of coſſes are given at 52 †; ſo that the whole number 137, from Batnir, may be ſtated at 193½ G. miles: ſomething being deducted for the deſert nature of the country, in the Batnir province.

If therefore 60 coſſes, or 85½ G. miles, be laid off from Adjodin to Batnir, and 193½ from Panniput; the interſection will place Batnir in lat. 28° 39′, lon. 73° 20′; and it will bear about S S E ½ E from Adjodin.

On the ſouth-eaſt of Adjodin, a few coſſes, Timur croſſed the river Dena; which I take to be one of the four branches of the Setlege, (poſſibly the Dond) and perhaps the only principal one among them, except the Beyah, already noticed.

* Two days marches are mentioned, one day 14 or 15 coſſes; another 18 coſſes. It is not eaſy to collect the diſtance from Sherefeddin's account of Timur's marches: but we find he was eight days on the march.

† Sherefeddin.

It

It muſt not be omitted that Timur croſſed an extenſive deſert in his way to Batnir: I mention this particular to ſhew that Alexander was not miſinformed, when he was told that there was a deſert beyond the Hyphaſis *. After taking and deſtroying Batnir, which employed only a few days †, he marched on the 30th of November, taking nearly the ſtraight road to Semanah; where he joined his grand army on the 8th of December 1398.

His march from Semanah to Delhi, about 88 coſſes, appears to have taken up 12 days; whence we may collect, that the common marches of his grand army, were about 7½ coſſes each day; or about 14 or 15 Britiſh miles, by the road.

On his return, he made an excurſion to the north-eaſt into the Doab, took the city of Merat, or Mevat, (called Mirte by de la Croix) 30 coſſes from Delhi, and advanced to the Ganges, near the place where it iſſues out of the Sirinagur mountains. Toglocpour, and the ſtraits of Cupele, two places of victory on the eaſtern bank of the Ganges, cannot now be recogniſed: but from Sherefeddin's account of the march, they cannot be far from Loldong; where the Britiſh army completed their campaign in 1774, 1100 Britiſh miles from Calcutta ‡.

From the banks of the Ganges, he proceeded to the north-weſt, along the foot of the Sewalic mountains, by Meliapour, Jallindar, and Jummoo, to the frontiers of Caſhmere: and from Caſhmere, acroſs the mountainous and deſert country of the Kakares § or Gehkers, to the Indus, which he croſſed at the ſame place as before, and in the ſame manner; and returned to Samarcand by way of Banou, Nagaz, Kermudge, Cabul, Bacalan, and Termed.

* Quintus Curtius.

† Batnir is repreſented as a very ſtrong place, and yet Timur is ſaid to have taken only a body of horſe with him (and indeed the extraordinary length of one of his marches ſeems to prove it). Did he reduce the place without artillery?

‡ At the time of Timur's conqueſt (1398) the Britiſh nation had ſcarely been announced to the people of Hindooſtan; nor was it till 200 years afterwards, that they found their way thither. Who could have believed that the Britiſh conqueſts would meet thoſe of Tamerlane, in a point equidiſtant from the mouths of the Ganges and Indus, in 1774?

§ The Gickers of Dow.

I have purſued Timur's marches, although beyond the limits of the preſent ſection; in order that the thread of it might not be broken. I now return to the Panjab.

The bearing and diſtance of Jummoo from Lahore, and that of Bullauſpour from Ludhana; determine the breadth of the Panjab country, north-eaſtward. Jummoo is given in the Perſian map at 50 coſſes from Lahore, north-eaſterly; and this I have followed, as the beſt authority. Col. Murray's map gives 54 coſſes, nearly north; but this bearing is diſproved by Mr. Forſter's obſervations: for Caſhmere lies about N by W, 97 coſſes from Jummoo, and is 135 coſſes from the bank of the Indus *, 20 miles above Attock; which the interval would not allow, if Caſhmere lay to the weſt of the meridian of Lahore.

Bullauſpour, a fort on the Setlege, within the mountains, I have only the authority of the Perſian map, and ſome vague MSS. for: and it is placed in the map 70 G. miles N E from Ludhana. Col. Murray's map gives the diſtance at 79 miles, in the ſame direction. The Perſian map fills up the ſpace pretty amply, between the Lahore road and the mountains from whence we ſuppoſe the Panjab rivers to ſpring: and had Mr. Forſter's journal from the Ganges to Jummoo, through the mountains, been left in England, this part might have been rendered more perfect; for he entered the mountains at Loldong, croſſed the Ganges and Jumna rivers within the hills, and then went by Bullauſpour to Jummoo.

By the aid of the Perſian map, and other MS. maps, (particularly the one furniſhed by Col. Murray) I have been enabled to give the road from Vizierabad to Yehungſaul, through the Retchna Doabah, with many other poſitions in and about the Panjab. The road from Jummoo to Beroudge, &c. is from Sherefeddin. Debalpour is known to be on the great road from Delhi to Moultan: and the diviſions of the country in the Ayin Acbaree point out its ſituation,

* By Mr. Forſter's jonrnal.

to

to be far down the Setlege, in the Jallindar Doabah. The few particulars that occur on the weſt of the Indus are all from D'Anville, except the poſition of Piſhour, which is placed according to Mr. Forſter's obſervations.

Between the Indus, Agimere, Moultan, and the Puddar river, is an extenſive deſert, in which is ſituated the fort of Ammercot, or Omircout, the birth place of Acbar, and the retreat of Khodaiar *. I think it improbable that ever we ſhall have any geographical knowledge of the inland parts, between the Puddar and Indus, more than the very vague information contained in the Indian hiſtories. The river Puddar, from the length of its courſe, promiſes to be navigable; and, probably, it is more from the want of uſeful products on its banks, than from the ſhallowneſs of its channel, that it has continued ſo long unexplored by Europeans.

The geography of the Panjab country, as being, comparatively, of little conſideration in a map of ſuch extent, has been detailed much beyond its ſeeming importance. The reaſon is, that we are not likely, as far as I can judge, for a great length of time, if ever, to be poſſeſſed of any better materials than thoſe I have exhibited; indifferent as they may be, in many inſtances: and therefore I conſider it as the finiſhing ſtroke to the whole matter, for ſome time to come. And if any good materials do caſt up, ſuch as the latitudes and longitudes of ſome principal points, or ſome meaſured routes, I ſhall, I flatter myſelf, have prepared the ground for the erection of a fabric of a better conſtruction. Upon a reconſideration of the queſtion concerning the length of the Panjab from Ludhana to Attock, I think ſomething might be added to the preſent dimenſions, perhaps 4 or 5 miles: but it is a matter of ſmall importance, where all the diſtances are eſtimated. The Panjab country being the frontier province towards Tartary, and the northern parts of Perſia, from whence have ſprung the conquerors of Hindooſtan in

* Sir William Jones's Nadir Shah.

every age, Alexander alone excepted; it follows, that their route to the interior parts of the country, muſt have led through it. Of all theſe conquerors, as far as I can learn, the routes of Alexander, Timur (or Tamerlane) and Nadir Shah, are the only ones that have their particulars on record *. Timur's route I have already given; as it was interwoven ſo cloſely with the geographical conſtruction; and towards which it furniſhed a conſiderable proportion of materials. And Nadir Shah's route was the ordinary one, by Attock and Lahore; and, I apprehend, he returned the ſame way; ſo that it furniſhes no matter for this work.

The particulars of the marches of the late Acmet Abdalla, (King of Candahar) during his frequent viſits to Delhi, in the preſent age, have not come to my knowledge. Alexander's route then, is the only one that remains to be diſcuſſed; and although laſt in point of order, here; is conſidered as the firſt as it reſpects hiſtory, and the gratification of popular curioſity.

I take it for granted, that Alexander croſſed the Indus † at or near the place where the city of Attock now ſtands; becauſe firſt, it appears to have been in all ages, the paſs on the Indus, leading from the countries of Cabul and Candahar into India: and this is ſtrongly indicated by the circumſtance of Acbar's building the fortreſs of Attock, to command it. Mr. Fraſer, in his hiſtory of Nadir Shah, ſays, "there is but one place where an army can "conveniently be tranſported, the ſtream being ſo rapid in moſt "parts. There is a caſtle commanding that paſſage, called the caſtle of Attock." Attock then, muſt ſtand on or near the ſite of the Taxila ‡ of Alexander. And ſecondly, as ſoon as Alexander

* Turmechirin Cawn, a deſcendant of Gengis, or Zingis Cawn, made an irruption into Hindooſtan about the year 1240; but the particulars of his route are wanting. Sherefeddin mentions, in one place, that he croſſed the Jenaub at Toulomba; and in another, that he beſieged the city of Merat in the Dooab. But Feriſhta confines the exploits of this deſcendant of Zingis (for his name is not mentioned) to the Panjab country.

† About 327 years before Chriſt, according to Uſher: and in the month of May.

‡ See the notes, page 51. Taxila muſt neceſſarily have been very near the Indus, to allow of its being 120 miles from the Hydaſpes (or Chelum). See Pliny's Indian itinerary, Book VI.

had

had croſſed over to the eaſt ſide, Ambiſares, King of the Indian mountaineers (the Gehkers or Kakares) ſent ambaſſadors with preſents to him. The Prince of the ſame country made his ſubmiſſions to Tamerlane, and in the ſame place, in 1398, (ſee page 86). From Taxila, as his intention appears to have been to penetrate by the ſhorteſt way to the Ganges, he would proceed by the ordinary road to that part of the bank of the Hydaſpes (Behut or Chelum) where the fortreſs of Rotas now ſtands; and here he put into execution his ſtratagem for croſſing the river, while the oppoſite ſhore was poſſeſſed by Porus. After croſſing the Aceſines (Jenaub) and Hydraotes (Rauvee) which latter he may be ſuppoſed to croſs near the place where Lahore now ſtands, he appears to be drawn out of the direct route towards the Ganges, to attack the city of Sangala, moſt probably lying between Lahore and Moultan; but we are left in uncertainty as to its poſition, by Alexander's hiſtorians, otherwiſe than by circumſtances, and detached facts. The name Sangala, occurs only in Arrian: and is ſaid to have been a city of great ſtrength and importance, in the country of the Cathei. Diodorus Siculus calls the ſame people *Catheri*, or *Katheri*; and theſe may very eaſily be recognized under the name of *Catry*, in Thevenot; that is to ſay, the *Kuttry* tribe, or Rajpoots. Thevenot ſpeaking of the people of Moultan, ſays, " there is a tribe of Gentiles (i. e. Gentoos or " Hindoos) here, called Catry, or Rajpoots: and this is properly " their country, from whence they ſpread over all the Indies." Diodorus Siculus marks them by the cuſtom of their women burning themſelves alive, on the funeral piles of their huſbands; which is indeed a cuſtom among them, as well as ſome other Hindoo tribes, at this day. Now we find by Arrian, that the Cathei were confederated with the Malli and Oxydracæ; that is, the people of Moultan and Outch, and which lay to the ſouth-weſt of the place where Alexander might be ſuppoſed to croſs the Hydraotes (or Rauvee) in his way into India. (That the Malli were the people of the preſent Moultan, we can have no doubt, if we attend

to the voyage of Alexander down the Hydaſpes, hereafter). I find no difficulty therefore, in determining the poſition of Sangala to be to the S W of Lahore. As to the diſtance, Alexander reached it the third day after croſſing the Hydraotes; and we cannot allow leſs than 48 road miles, for theſe 3 marches; or 36 G. miles in horizontal diſtance. Had Alexander's route been S E towards the Ganges, the above diſtance would have brought him within 6 miles of the Hyphaſis (the modern Beyah) and Arrian ſays not a word about that river, until Alexander had returned to Sangala from the purſuit of the fugitives, and again ſet forward on his march. No idea is given either in Arrian, Diodorus, or Quintus Curtius, of the diſtance between Sangala * and the Hyphaſis; but it may be collected by Arrian's manner of ſpeaking, that they were not near each other. Diodorus places the kingdoms of Sophites and of Phigeus between the Catheri and the Hyphaſis; whence we may infer a conſiderable ſpace between them. If I am right in my conjecture concerning the poſition of Sangala, the Hyphaſis (Beyah) muſt be about 40 miles from it, eaſtward; and let Sangala be where it will, the river Beyah anſwers to the Hyphaſis or Hypaſis (called anciently by the natives, Beypaſha) and Alexander's altars may probably have been erected between Aurungabad and the conflux of the Beyah and Setlege, at Firoſepour; Pliny ſays on the further, or eaſtern ſide of the river. One cannot help regretting the extreme brevity of this part of Arrian's narration, with reſpect to the detail of Alexander's marches, between Sangala and the Hyphaſis, and back again to the Hydaſpes; which is diſpatched too rapidly for a geographer to profit by. Diodorus and Curtius are not more explicit; nor indeed, if they had, are they to be much depended on, in this reſpect, for they have confounded the Hydaſpes (Chelum) with the Aceſines (Jenaub) in their account of Alexander's voyage. But, I think, whoever takes the trouble to compare Arrian's ac-

* Although Diodorus and Curtius do not give the name Sangala, yet the city meant by Arrian, under that name, is pointedly deſcribed by them.

count,

count, both of the land marches, and the voyage down the rivers, with the geography of the Panjab; will find the ancient Hydaſpes, in the modern Chelum, the firſt river beyond the Indus; and ſucceſſively, the Aceſines in the Jenaub or Chunaub; the Hydraotes in the Rauvee; and the Hyphaſis, in the Beyah: though I will not contend for the exact poſition of the altars, whether they might be above the conflux of the Beyah, or below it: only the ancient name *Beypaſha*, appears more likely to have been the origin of the Greek Hyphaſis, Hypaſis or Huphaſis; than *Shetooder*, which was the ancient name of the Setlege.

There is a flat contradiction between Arrian and Diodorus (and Curtius who follows the latter) regarding the quality of the country on the eaſt of the Hyphaſis; the former deſcribing it as a flouriſhing and well inhabited country; the latter ſay there is an extenſive deſert between it and the Ganges. Arrian's account ſuits the upper part of the river, and Diodorus's, the lower part; for there is certainly a deſert, as has been before obſerved, between the Panjab and Batnir.

We are left to ſuppoſe that Alexander, after the determination of his army to proceed no further, returned to the Hydaſpes, by the route he came, bating the ground he loſt in marching after the Catheri: and finding his cities of Nicæ and Bucephalia completed; and a fleet, or part of one, built out of the timber procured from the neighbouring mountains, named by them *Emodus* and *Himaus* or *Imaus*, he proceeded down the Hydaſpes with his fleet, while the greater part of the army marched by land.

Here it may be proper to obſerve, that Arrian does not ſay from whence the timber came, but leaves us to ſuppoſe that it came from the foreſts neareſt to the river, and enough is known of the nature of the country, to convince us that the foreſts bordering on the foot of the Caſhmirian hills were very near to the river Hydaſpes. The mountains Emodus and Imaus indeed, were at a very great diſtance, and could be only in ſight to the N E; ſince they are a conti-

continuation of the great ridge called *Hindo-Ko,* or the Indian Caucafus; and which are near the head of the Indus, and run through the heart of Thibet. I fufpect Emodus and Imaus to be different readings of the fame name; and Imaus or Himaus, we have every reafonable proof of being derived from the Sanfcrit word *Himmaleh,* fignifying fnowy. That vaft ridge bears the fame name at prefent; and Pliny knew the circumftance well *.

To return to Alexander. He failed from his firft place of embarkation in the Hydafpes, about the middle of November N. S. 327 years before Chrift, (according to Ufher) having of courfe, been in the field the whole rainy feafon; for he croffed the Indus in May. In five days, the fleet arrived at the conflux of the Hydafpes and Acefines (Chelum and Jenaub) the identity of which, is moft pointedly marked, by the nature of the banks: for thefe large rivers, pent up within ftrait rocky beds, form a rapid and troubled ftream at their confluence; and this appearance difmayed the whole fleet, and proved fatal to fome of the large fhips. A fimilar defcription of this confluence is given in Sherefeddin's life of Timur, who croffed a little below it in 1398 nearly at the fame feafon, over a bridge of boats. At this place, Philip, who had led a divifion of the army along the banks of the Acefines, (whofe courfe is not far from that of the Hydafpes, and gradually approaches it, until they meet) here joined the grand army, and was ferried over the Acefines. We may obferve from this, and from Craterus and Hepheftion being detached with the other two divifions along the oppofite banks of the Hydafpes, that Alexander might be faid almoft to fweep the whole country. He now approached the confines of the Malli, and fet out on his *firft* expedition with a detachment, againft the people of the country, to prevent their giving affiftance to that nation; but the particulars of his march are not recorded. He returned again to the fleet and army at the conflux of the Hydafpes;

* Imäus, incolarum lingua nivofum fignificante. Pliny Book VI.

and

and from thence difpatched the fleet to the next place of rendezvous, at the conflux of the Hydraotes (Rauvee) with the Acefines (Jenaub); for fo the confluent ftreams of the Hydafpes and Acefines were named, the Acefines being the largeft; and as the Hydafpes is faid to be 20 ftades in width the whole way, the other muft have been an immenfe river. The army was divided into four divifions, three of which marched at a confiderable diftance from each other, along or near the courfe of the river; the fourth, Alexander took the command of himfelf, and marched inland from the river, to attack the Malli on that fide; in order to drive the fugitives towards the forks of the rivers, where they might be intercepted by fome of the other divifions. The line of direction of his march muft have been fouth or fouth-eaftward. On the fecond morning he took a ftrong city, and Perdiccas, another; and after a fecond long night march, arrived at the Hydraotes (Rauvee): perhaps, we may allow for the day, and two night marches, 40 road miles; or 30 G. miles of horizontal diftance *. He fell in with the river at fome confiderable diftance above the conflux (the appointed rendezvous for the fleet) as appears by what followed: and after croffing it, took two other towns †, and then proceeded to the capital city of the Malli; after difpatching Pithon back to the river fide, to intercept the fugitives. This capital of the Malli, muft not be miftaken for the modern Moultan; which is at leaft 40 miles by land, below the conflux of the Hydraotes; or two days voyage for a boat going with the ftream ‡: but the ancient capital in queftion, was above the conflux, and near the Hydraotes (Rauvee) by the garrifon's leaving it, and retiring to the oppofite (north) fide of the river. Alexander recroffes the river, after them, but finding

* The Ayin Acbaree reckons 27 coffes, or 51 B. miles, between the two confluences of the Hydafpes and Hydraotes with the Acefines; but this account includes the windings of the channel.

† One of thefe was a town of Brachmans or Bramins. Some of them burnt themfelves, together with their houfes; and few came alive into the enemies hands. This mode of conduct has been practifed in our own times. See Orme's Indoftan, Vol. II. p. 255.

‡ Itinerary 1662.

O them

them too ſtrong to be attacked with the party he brought with him, and waiting for a reinforcement, the enemy had time to retire into another fortified city, *not far off*. This *nameleſs* city, is the place where Alexander was wounded, and in ſuch imminent danger; and not in the capital of the Malli, nor among the *Oxydracæ* (Outch) which is on the oppoſite ſide of the Aceſines (Jenaub) and near its confluence with the Indus. Indeed Arrian is particular in pointing out this error [of Diodorus]. As to the diſtance of this city above the conflux, we may collect that it could not be very far, both by reaſon of the quick communication between Alexander, and the camp and fleet; and by the ground he had marched over, after leaving the firſt conflux. I am inclined to place it about 10 G. miles above the conflux (of the Jenaub and Rauvee) and a few miles from the north bank of the latter; and the capital of the Malli on the oppoſite ſide, and not far from the river bank; ſo that they will be ſomewhat below the preſent town of Toulomba, a famous paſs on the Rauvee, between Lahore and Moultan.

When Alexander was ſufficiently recovered from the effects of his wound, he was embarked on the *Hydraotes*, and carried *down the ſtream*, to his fleet, which appears to have been brought into the Hydraotes; for we learn that he paſſed the conflux after he joined the fleet *.

We learn alſo, from the ſame author, that the Aceſines preſerves its name until it is loſt in the Indus, although it receives the Hydaſpes and Hydraotes: the hiſtorian of Timur, in like manner, gives the name of Jenaub to the confluent waters of the Chelum and Jenaub: this alone, however, does not prove that it was the largeſt river; for we have many examples, in modern geography, at leaſt, where the adjunct river, though the ſmalleſt, gives its name to the confluent waters. It is worthy of remark, that Arrian, as it appears, not knowing what became of the Hyphaſis (Beyah)

* Arrian.

does

does not ſay that Alexander ſaw the mouth of it, as he did thoſe of the Aceſines and Hydraotes; but only informs us that it fell into the Aceſines. And indeed, the truth is, that theſe rivers under the modern names of Beyah and Setlege, do not join the Jenaub; but after uniting their ſtreams, fall into the Indus, a great way farther down. It is certain that the courſes of rivers, even of the largeſt, do alter ſo much, in time, that what Arrian ſays, might have been the caſe; but there is no neceſſity for ſuppoſing it.

Arrian, as well as Sherefeddin, informs us that the lower part of the Panjab towards Moultan, is flat and marſhy, and inundated [like Bengal] by the periodical rains, which fall between the months of May and October. As a proof of it, Alexander was once obliged to break up his camp, on the Aceſines (Jenaub) and retire to the higher grounds.

From the conflux of the Aceſines with the Indus, we accompany Alexander ſucceſſively to the territories of the Sogdi, Muſicani, Oxycani, Sindomanni, and Patalans. The Oxydracæ, who had ſubmitted by their ambaſſadors, were left unmoleſted. Bhakor anſwers neareſt to the poſition and deſcription of the country of the Muſicani, which was next to the Sogdi, and the moſt powerful on that part of the Indus: and the Oxycani, *the next in order, to* Hajycan; a circar, or diviſion of Sindy. In Sindomanni, we may recogniſe the country of Sindy; or that thro' which the river Sinde flows, in the lower part of its courſe: and Pattala, has ever been referred to the Delta of the Indus. But ſo vaſt a change of names, or rather ſo vaſt a change in the manner of writing them *, forbids the building of any hypotheſes, on the ſimilarity of ancient and

* A compariſon of the modern names with the ancient, in many parts of *Aſia*, leads me to conclude, that had they been faithfully written by the Greeks, much *leſs* difference would be found between them, than we now experience: and I am inclined to think that the names of the rivers, in particular, are ſcarcely changed ſince the time of the Greeks. Vanity has no ſhare in new naming of rivers.

modern names of places; except in cafes, where the locality is equally evident.

Having now conducted Alexander acrofs the Panjab, and down the Indus, to the head of its *delta*, it may not be amifs to obferve, that the ftate of the country through which he paffed, was very different from what we fhould have conceived, who have been in the habit of confidering Hindooftan, as being governed by one monarch; or even as divided into feveral large kingdoms. In the Panjab country, in an extent lefs than is comprifed within one of the foubahs, or grand divifions of the Mogul Empire, we find no lefs than feven nations; and along the lower parts of the Indus, many more. Even in the Panjab, where Alexander warred a whole campaign and part of another, there was nothing of that kind of concert appeared, which muft have taken place between the governors of provinces, had they been under one head: but in general, each acting feparately, for himfelf. The Malli, Catheri, and Oxydracæ, we are told, leagued together for their mutual defence; and this proves that they were feparate governments. It is curious, that the fame caufe that facilitated Alexander's conquefts in India, fhould alfo have given them the degree of celebrity that has ever accompanied them; that is to fay, their fubdivifion into a number of fmall ftates: and ordinary readers, either not regarding, or not comprehending their extent and confequence, have confidered them as kingdoms. The conqueft of the Panjab and Sindy, would, with fuch an army *, be no very great matter in our times, although united: and yet this conqueft is confidered as a brilliant part of Alexander's hiftory: the truth is, the romantic traveller is blended with the adventurous foldier; and the feelings of the reader, are oftner applied to, than his judgment.

But although the weftern part of Hindooftan was in this ftate, there exifted beyond, or rather towards the Ganges, a powerful

* Alexander had 120,000 men, and 200 elephants. Arrian.

king-

kingdom, as appears by the ftate Megafthenes found it in, when he refided in quality of ambaffador from Seleucus Nicator, not many years after, at Palibothra, the capital of the Prafii *. The Prafians probably owed to the difcontents that prevailed in Alexander's army, their efcape from a foreign conqueft, at that period.

Alexander arrived at Pattala about the middle of Auguft (Before Chrift 326 years) and after he had made proper arrangements for the fafety and conveniency of his fleet and army; and had viewed alfo the two principal mouths of the Indus, in which he experienced fome degree of furprife, if not of terror, from the *bore*, or fudden influx of the tide †; he departed by land for Sufa, leaving Nearchus with the fleet to follow, as foon as the etefian winds ‡ fhould ceafe. He had been more than 9 months in failing down the Hydafpes, and Indus. He croffed the Hydafpes about the fummer folftice in the preceding year, and of courfe had been in the field, or in fome kind of warfare, during two rainy feafons: we are told however, by the author of the Ayin Acbaree, that but little rain falls in the lower parts of Moultan; that is, the part bordering on the Indus. Nearchus failed about the middle of October § with the N E monfoon; conducting, according to Dr. Gillies, in his elegant hiftory of Greece, "the *firft European fleet* which navigated the Indian feas." By the journal of this voyage, publifhed by Arrian, it appears that the fleet failed out of the weftern branch, by the diftance between the mouth of the Indus and the river Arabius, which was only 1000 ftadia; for Arrian gives the breadth of the Delta at 1800 ftadia, along the fea coaft ||. Arrian takes notice that when Nearchus ftood out to fea, on the coaft of India, he found either no fhadow at noon; or elfe the fhadow,

* See the Introduction. † ibid.

‡ The Etefian winds blew from the N E in the Mediterranean, in the months of July and Auguft; and the ancients thought proper to apply the fame term to the periodical winds of the fame feafon in the Indian feas, although they blew from the oppofite quarter.

§ The firft of October O. S. according to Ufher.

|| Pliny gives it 220 miles, fo that he reckoned nearly 8 ftades to one of his miles.

if

if any, was projected ſouthward. This, however, could not poſſibly happen, becauſe Alexander did not arrive till after the ſummer ſolſtice, nor till Auguſt. And yet Arrian took this from Nearchus's journal: but whoever examines the geography of it, will find that he could never be within a degree of the tropic, allowing him to have ſailed at a reaſonable diſtance from the ſhore.

It may appear extraordinary that Alexander ſhould, in the courſe of a few months, prepare ſo vaſt a fleet for his voyage down the Indus; eſpecially as it is ſaid to be the work of his army. But the truth is, that the Panjab country, like that of Bengal, is full of navigable rivers; which, communicating with the Indus, form an uninterrupted navigation from Caſhmere to Tatta: and, no doubt, abounded with boats and veſſels ready conſtructed to the conqueror's hands. That he built ſome veſſels of war, and others of certain deſcriptions that might be wanted, I entertain no doubt; but tranſport and proviſion veſſels, I doubt not, were to be collected to any number. There were about 80 triremes; and the whole number of embarkations were near 2000. I think it probable, too, that the veſſels in which Nearchus performed his coaſting voyage to the gulf of Perſia, were found in the Indus. Veſſels of 180 tons burthen are ſometimes uſed in the Ganges; and thoſe of 100 not unfrequently.

Account of the MAP *of the Countries, lying between the River* INDUS, *and the* CASPIAN SEA.

HAVING ſo often had occaſion to mention the countries of Perſia and Tartary, contiguous to the north-weſt parts of India; it will be for the reader's convenience to have a ſmall map of thoſe parts, inſerted in this work; by which the relative poſitions of the

frontier provinces of both countries, will be ſhewn, and the heads of the Indus, Ganges, and Oxus, brought into one point of view. It will alſo ſerve to convey an idea of the route purſued by Mr. Forſter *, from the banks of the Ganges, to the Caſpian ſea; and which has never been travelled by any European in modern times; at leaſt no account of it is to be found on public record.

The poſitions of Jummoo, Attock, Behnbur (or Bember) and Piſhour, are given in the large map of India; therefore, I ſhall begin with an account of thoſe of Caſhmere, Cabul and Candahar.

From Jummoo, Mr. Forſter travelled to the capital city of Caſhmere, which he reckons 97 coſſes by the road; and the general

* The hiſtory of this gentleman's travels is very curious. He proceeded by land from Bengal to the Caſpian ſea, and from thence by the ordinary route on the river Wolga, &c. to Petersburgh; in the years 1783 and 1784. It was neceſſary, from a regard to ſafety, to avoid the country of the Seiks; that is, Lahore: he accordingly croſſed the Ganges and Jumna rivers within the mountains, and proceeded to Caſhmere by the road of Jummoo. He viſited this celebrated country, I preſume, through motives of curioſity, as it lay ſo far out of his way. From thence, croſſing the Indus, about 20 miles above Attock, he proceeded to Cabul, the capital city of Timur Shah, King of Candahar; or more commonly known by the name of *Abdalla*. He meant to have proceeded from thence, through the country of Bucharia or Tranſoxonia; but finding it too hazardous, he purſued the accuſtomed route of the caravans by Candahar. From this place, which is ſuppoſed with reaſon to be the *Paropamiſan* Alexandria, his route was nearly in a ſtraight line through Herat, to the ſouth extremity of the Caſpian; acroſs the modern provinces of Seiſtan, Koraſan, and Mazanderan; and which were known to the Ancients, under the names of *Paropamiſus*, *Aria*, or (*Ariana*) *Parthia*, and *Tapuri*. It will be perceived that (as far as a compariſon can be made) Mr. Forſter traced back a conſiderable part of the route purſued by Alexander, when in purſuit of Beſſus. As he travelled in the diſguiſe of an Aſiatic, and in the company of Aſiatics; through a vaſt extent of Mohammedan country, where the religious prejudices of the natives, are nearly equalled by their political jealouſy of all ſorts of foreigners; we may pronounce the man who could perform ſuch a taſk without ſuſpicion, to poſſeſs great preſence of mind, and no leſs diſcretion; added to an uncommon ſhare of obſervation of manners, and facility of attaining languages. Detection had been worſe than death: and he was ſubject to continual ſuſpicion from his fellow-travellers, who were not in the ſecret. I hope he means to publiſh his obſervations on the manners, government, and preſent ſtate of that part of Perſia, of which we know the leaſt: as well as of Caſhmere, a ſubject yet more intereſting to the philoſopher and naturaliſt. It may ſerve to ſhew the extenſive commercial intercourſe, and credit in Hindooſtan, and the adjoining country (once dependant on it) notwithſtanding the variety of governments it contains, and the unſettled ſtate of the greateſt part of them; that the bills of exchange which Mr. Forſter obtained at Calcutta, were negociable at Cabul, 17 or 18 hundred miles diſtant; and the capital of a kingdom totally unconnected with, and poſſibly hoſtile in political ſentiments, to that in which the bills originated. From the time he left the laſt Britiſh ſtation in Oude, to the Caſpian, in which he employed near a twelvemonth, and travelled 2700 Engliſh miles; he was compelled to forego moſt of the ordinary comforts, and accommodations, which are enjoyed by the loweſt claſs of people, in European countries; ſleeping in the open air, even in rainy and ſnowy weather; and contenting himſelf with the ordinary food and cookery of the country he paſſed through. Indeed it was barely poſſible to carry with him the means of procuring comforts, without hazarding his ſafety; as he was ſo long on the road.

bearing,

bearing, at N by W. The laſt 19 coſſes of the way, were by water, following the courſe of the Chelum or Behut river (he writes it *Jalum)* which, with its ſeveral branches, traverſes the valley of Caſhmere, and takes nearly a weſterly direction, in this place. This being the caſe, only 78 coſſes are to be reckoned in a northwardly direction, from Jummoo to Iſlamabad, the place of embarkation: and as the hilly (not to ſay mountainous) nature of the country requires at leaſt 45 coſſes to make a degree, the poſition of the capital of Caſhmere may be reckoned 117 G. miles N by W from Jummoo: or in lat. 33° 49′, lon. 73° 11′. The Perſian tables give its latitude at 35°: but not only the diſtance from Jummoo, but its bearing from Piſhour, plainly demonſtrates that it ought not to be higher than 33° 49′, or at moſt 34°; provided Lahore be in 31°. The capital of Caſhmere has the ſame name as the province, according to Mr. Forſter, and M. Bernier: but the Ayin Acbaree, at an earlier period, names it Sirinagur. It is a large city, and built on the ſides of the river Chelum, which has a remarkable ſmooth current throughout the whole valley, according to Mr. Forſter) and this proves the remarkable flatneſs of the country; as the body of water is very large.

The valley or country of Caſhmere, is celebrated throughout upper Aſia for its romantic beauties, for the fertility of its ſoil, and for the temperature of its atmoſphere. All theſe particulars may be accounted for, when it is conſidered, that it is an elevated and extenſive valley, ſurrounded by ſteep mountains, that tower above the regions of ſnow; and that its ſoil is compoſed of the mud depoſited by a capital river, which originally formed its waters into a lake, that covered the whole valley; until it opened itſelf a paſſage through the mountains, and left this fertilized valley, an ample field to human induſtry, and to the accommodation of a happy race: for ſuch the ancient inhabitants of Caſhmere, undoubtedly were.

Although

Although this account has no living teſtimony to ſupport it, yet hiſtory and tradition, and what is yet ſtronger, appearances; have impreſſed a conviction of its truth on the minds of all thoſe who have viſited the ſcene, and contemplated the different parts of it. Different authors vary in their accounts of the extent of the valley. The Ayin Acbaree reckons *Caſhmere* 120 coſſes long, and from 10 to 15 broad; but I imagine that ſome other diſtricts under its government, are included. Bernier, who accompanied Aurengzebe thither, in 1664, ſays it is 30 leagues long, and 10 or 12 broad. And Mr. Forſter, who I dare ſay was accurate in his enquiries and obſervations, ſays it is 80 miles long, and 40 in breadth; and of an oval form.

The author of the Ayin Acbaree dwells with rapture on the beauties of Caſhmere; whence we may conclude that it was a favourite ſubject with his maſter Acbar, who had viſited it three times, before Abul Fazil wrote. Other Emperors of Hindooſtan viſited it alſo, and ſeemed to forget the cares of government, during their reſidence in *the happy valley.* It appears that the periodical rains, which almoſt deluge the reſt of India, are ſhut out of Caſhmere by the height of the mountains; ſo that only light ſhowers fall there: theſe however, are in abundance enough to feed ſome thouſands of caſcades, which are precipitated into the valley, from every part of the ſtupendous and romantic bulwark that encircles it. The ſoil is the richeſt that can be conceived; and its productions thoſe of the temperate zone. A vaſt number of ſtreams and rivers from all quarters of the valley, bring their tribute to the Chelum, the parent of the ſoil; which is a large navigable river, and in which we recogniſe the famous Hydaſpes of Alexander, who croſſed it about 100 miles below the valley. Many ſmall lakes are ſpread over the ſurface, and ſome of them contain floating iſlands. In a word, the ſcenery is beautifully picturesque; and a part of the romantic circle of mountains, makes up a portion of every landſcape. The pardonable ſuperſtition of the ſequeſtered inhabitants, has mul-

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tiplied the places of worſhip of Mahadeo, of Beſchan, and of Brama. All Caſhmere is holy land; and miraculous fountains abound. One dreadful evil they are conſtantly ſubject to, namely, earthquakes; and to guard againſt their moſt terrible effects, all the houſes are built of wood; of which there is no want.

Among other curious manufactures, with which Caſhmere abounds, is that of the ſhawls; which are diſtributed over all the weſtern and ſouthern Aſia. We learn from M. Volney, that they even make a part of the dreſs of the Egyptian Mamlouks: and at preſent (as if to exhibit the moſt ſtriking contraſt in the claſſes of wearers) they are worn by the Engliſh ladies. There remains no doubt, but that the delicate wool of which they are made, is the produce of a ſpecies of goat, either of that country, or of the adjoining one of Thibet. Notwithſtanding the preſent extenſive demand for ſhawls, the manufacture is declined to one fourth of the former quantity; which may be eaſily referred to the decline of the Perſian and Hindooſtanic empires. Here are bred a ſpecies of ſheep, called *Hundoo*, which like thoſe of Peru, are employed in carrying burthens. The annual publick revenue of Caſhmere, in the time of Aurengzebe, appears to have been only about 35,000l. From what has been ſaid above, it was, no doubt, a favoured province.

The Caſhmirians have a language of their own, ſaid to be anterior to the Sanſcrit. And it would appear that they had alſo a religion of their own, different from that of the Hindoos. Abul Fazil ſays, "the moſt reſpectable people of this country, are the Reyſhees, "who although they do not ſuffer themſelves to be fettered by tradi- "tions, are doubtleſs true worſhippers of God." Nothing can exceed the liberality of mind both of Abul Fazil, and of his maſter, the great Acbar: but the former appears to have caught ſome of the enthuſiaſm of *the valley*, by his deſcriptions of ſome of the holy places in it. To ſum up the account of Caſhmere, in the words of the ſame author, "It is a garden in perpetual ſpring."

So

So far am I from doubting the tradition reſpecting the exiſtence of the lake that covered Caſhmere; that appearances alone would ſerve to convince me, without either the tradition, or the hiſtory. It it a mere natural effect; and ſuch I apprehend muſt be the economy of nature, in every caſe where the waters of a river are incloſed in any part of their courſe, by elevated lands. The firſt conſequence of this ſtoppage, is, of courſe, the converſion of the incloſed lands, into a lake: and if this happens near the fountains of the river, and the ground is ſolid, it is likely to remain a lake for ever; the river not having force enough in its infant ſtate to work itſelf a paſſage through the mountains. Hence it is that more lakes are found near the ſources of rivers, than in the lower parts of their courſe. If the river be incloſed after it has gained a great acceſſion of water, and of courſe, ſtrength, it will indeed at firſt form a lake as before; but in time, the place at which it runs over, will be gradually fretted away, as in the caſe of the Chelum abovementioned. The Euphrates, in like manner, opens itſelf a paſſage through Mount *Taurus*; and the Ganges through Mount *Imaus*: and even though the baſe of the mountain be of the firmeſt texture, it will give way to the inceſſant friction, through a courſe of ages: for we know not but that it may have been an operation of ſome thouſand years. In the caſe of the Ganges, which paſſes THROUGH Mount Imaus, it may be ſuppoſed that the lower *ſtrata* were ſofter than the upper; for the upper ſtill remain, to a vaſt height. In that of the Chelum, the lake appears to have exiſted long enough to depoſit a vaſt depth of ſoil, before it diſperſed. The Caſhmirian hiſtory names the lake SUTTY-SIRR: and adds, that Kuſhup led a colony of Bramins to inhabit the valley, after the waters had ſubſided. Caſhmere is the frontier province of Hindooſtan, towards Tartary and Thibet: it having little Thibet on the north, and great Thibet on the eaſt; and Caſhgur on the N W.

From Caſhmere, Mr. Forſter went by a very circuitous route, to Cabul; the barbarous ſtate of the people who inhabit the ſhores

of the Indus towards its ſource, making this precaution neceſſary. The countries in queſtion are thoſe of Pehkely or Puckely, Sowhad, and Bijore, the ſcene of Alexander's warfare on the weſt of the Indus; all of which were ſubjected to regular authority during the long and vigorous reign of Acbar. We are told by the Ayin Acbaree, that ſeveral of the ſtreams that form the head of the Indus, yeild gold duſt: and this accounts for the circumſtance of the Indian tribute being paid in gold to Darius Hyſtaſpes; according to HERODOTUS (Book III.). The ſum indeed ſeems too great, in proportion to what other provinces paid: but as the gold of the river *Pactolus* has been exhauſted; ſo may that of the Kiſhengonga, in Puckley, be diminiſhed. Pehkely, I take to be the *Pactya* of Herodotus, Book IV. (as well as the *Peucelaotis* of Arrian) from whence Scylax ſet out to explore the courſe of the Indus, under the orders of the ſame Darius: for it lies towards the upper part of the navigable courſe of that river.

The firſt part of Mr. Forſter's route from Caſhmere, was down the courſe of the Chelum, or Behut, which has a ſouth or S S W courſe, from the capital of Caſhmere, for about 14 coſſes; at which point he diſembarked, and ſtruck to the weſtward, towards Muzifferabad; the capital town of a chief, who ſtyles himſelf Sultan of a diſtrict of the ſame name, bordering on the ſouth-weſt of Caſhmere. This capital is reckoned 71 coſſes from Caſhmere city, in a W by S direction. The country being mountainous from the confines of Caſhmere, together with the obliquity of the courſe of the river; not more than 73 or 74 G. miles can be allowed on this courſe. The frontier of Caſhmere was paſſed at 15½ coſſes from the landing place, on the bank of the Chelum.

At Bazaar, 64 coſſes in a S W by S direction from Muzifferabad, Mr. Forſter croſſed the Indus. This place is about 20 miles to the N N E of Attock, and, together with Jummoo, ſerves to correct the poſition of Caſhmere, in reſpect of Attock and Lahore. I have allowed the 64 coſſes to produce 80 G. miles; and it accords, as nearly

nearly as ſuch a rough kind of computation, can be expected to do. The greateſt part of the way from Muzifferabad, was mountainous, and the country ſubject to petty Princes of the Patan race. Mr. Forſter entered the country of Timur Shah Abdalla, at Hyderbungee, a town about 8 miles to the eaſt of the Indus.

The Indus (or Sinde) was croſſed by Mr. Forſter, the 10th of July. He remaks, that no rain had then fallen in that neighbourhood: but we know that the periodical rains muſt have commenced in the northern mountains, near three months before, and of courſe muſt have ſwelled the river very conſiderably; for Mr. Forſter judged the breadth of the ſtream to be three quarters of a mile. It was alſo very rapid, and turbulent, although not agitated by any wind. He obſerved alſo, that the water was extremely cold, and that a great deal of black ſand was ſuſpended in it. Nil-ab, or the blue river, is a name ſometimes applied to the Indus: poſſibly from the fancied colour of its waters, when mixed with this ſand. The Ganges and Burrampooter rivers, on the contrary, when ſwoln, are of a pale yellow, lightly tinged with red; being then ſaturated with mud. I doubt not but that the Indus aſſumes the ſame colour, after the rains have fallen into the level countries, and waſhed a portion of the ſoil into the river.

I cannot find out where the ſprings of this celebrated river, are. Unqueſtionably, they are far more remote than the ſides of the mountains, which ſeparate Hindooſtan from Tartary; and where both the ancient and modern Europeans have agreed to place them: for as theſe mountains are not in a higher parallel than 35°, at moſt; the Indus could have no more than 150 G. miles to run (reckoning in a ſtrait line) before it reached the place where Mr. Forſter croſſed it: and we have no example of any river having acquired ſuch a volume of water, in ſo early a part of its courſe, as this ſuppoſition would make it. All the Panjab rivers; and moſt of the weſtern rivers; that is, thoſe of Candahar and Cabul, fall in below this point. The Ayin Acbaree ſays, "the Sind, accord-

"ing

" ing to ſome, riſes between Caſhmere and Caſhgur, while others " place its ſource in Khatai." By Khatai, is ſtrictly meant CHINA; but the term is likewiſe extended to Tartary, and other adjacent countries; of which Caſhgur may be one. This country commences on the north and north-eaſt of Caſhmere, and extends northward to the fortieth degree of latitude; and eaſtward to the chain of mountains, which, in the idea of the ancients, ſeparated the two Scythias: in effect, it was that branch of Mount *Imaus* that extended in a direction nearly from north to ſouth, and terminated on the eaſtern branch of the ſame mountains, near the heads of the Ganges. The Indus may then poſſibly ſpring from the weſt ſide of this ridge of Imaus; and this would allow a length of courſe, equal to what the Ganges takes, before it enters Hindooſtan. A great part of the ſpace allotted by the maps to Caſhgur, is known to be a ſandy deſert: it is poſſible that the black ſand ſeen in the river by Mr. Forſter, is rolled down by the torrents, from that deſert. I cannot help obſerving that on the eaſt ſide of the northern Imaus, the name *Chatæ* appears as the name of a nation *; as that of *Caſia* does in the poſition aſſigned to the modern city of Caſhgur. Khatai, as I have ſaid before, is applied rather in a lax ſenſe by the people of Hindooſtan. CHEEN, or MAHA-CHEEN, is their proper name for the empire of China; as SINÆ appears to have been among the Romans. Khatai anſwers better to Tartary, and its different members, ſuch as Thibet, &c. Probably Khatai, and Scythia have the ſame derivation; as they appear to have been applied in certain inſtances, to the ſame tracts of country.

Piſhour or Peiſhore, is the next place of note that lay in Mr. Forſter's route. It is a conſiderable city, and is ſituated on the great road leading from Attock to Cabul; being 25 coſſes from Attock, and 29 in a W by S direction from Bazaar; whence its latitude ſtands in the map at 32° 44′; and lon. 69° 54′. From this

* In Ptolemy.

place to Cabul, Mr. Forſter reckons 90 coſſes; Col. Popham's MS. 108; and Tavernier 100. I have preferred Mr. Forſter's account of the diſtance; but have altered his bearing to N N W, which accords beſt with other circumſtances: and allowing 45 coſſes to a degree, Cabul, by this account, will be in lat. 34° 36′; lon. 68° 58′. By the Perſian tables, its latitude is 34° 30′; and its lon. 4° 42′ weſt from Lahore: but the conſtruction allows only 3° 47′. Theſe bearings, taken in a great meaſure, at a venture, together with the computed diſtances on each; can only be admitted in geographical determinations, where there are no fixed points at the extremity of the ſeries, through the neceſſity of the caſe: however, they may be eſtimated, as at leaſt equal in point of authority, to the Perſian tables of longitudes, in which Cabul is placed 104° 40′ to the eaſt of the Fortunate Iſlands.

The city of Cabul, the preſent capital of Timur Shah, King of Candahar, is ſituated near the foot of the Indian *Caucaſus*, or *Hindoo-Ko*; and not far from the ſource of the Attock river, which paſſes very near, or under it. Its ſituation is ſpoken of in terms of rapture by the Indian hiſtorians; it being no leſs romantic, than pleaſant: enjoying a delightful air, and having within its reach, the fruits and other products both of the temperate, and the torrid zone. In a political light, it is conſidered as the gate of India towards Tartary: as Candahar holds the ſame place, with reſpect to Perſia.

The Ayin Acbaree is very full, in its deſcription of the province of Cabul; as well as thoſe of Candahar and Caſhmere. Cabul has an extent given to it, of 150 coſſes from the Indus (at Attock city, probably) to Hindoo-Ko; and 100, from the river Chaghanſerai, the eaſtern boundary, to Charbagh. Theſe meaſures may be taken at 200 G. miles, by 134; and appear conſiſtent.

The province of Cabul appears, by every account, to be a country highly diverſified: being made up of mountains, covered with eternal ſnows; hills of moderate height, and eaſy aſcent; rich

plains

plains, and ſtately foreſts; and theſe enlivened by innumerable ſtreams of water. It produces every article neceſſary to human life, together with the moſt delicate fruits and flowers. It is ſometimes named Zabuliſtan, from Zabul, one of the names of Ghizni: which was the ancient capital of this country, and of which, Candahar was then reckoned a part. The mountains of Hindoo, or Hindoo-Ko, ſeparate Cabul from Balk and Badackſhan; and are preciſely the ridge deſigned by the ancients, under the name of the Caucaſus of India: and the proximity of this ridge to Cabul, occaſions the moſt rapid changes in the temperature of the atmoſphere. The Ayin Acbaree, from whence moſt of theſe particulars are collected, takes particular notice of the Attock river, which takes its courſe from north to ſouth (nearly) and fertilizes the lands of Cabul and Ghizni.

Cabul, as well as Candahar, together with ſome diſtricts on the eaſt of the Indus, are compriſed within the extenſive dominions of Timur Shah Abdalla; which extend weſtward to the neighbourhood of the city of Terſhiſh; including generally Cabul, Candahar, Peiſhore, Ghizni, Gaur, Seiſtan (or Sigiſtan) and Koraſan. This tract is not leſs than 650 B. miles in length, from eaſt to weſt: but although we know not what the extent may be, breadthwiſe; yet there is little reaſon to ſuppoſe, that it bears any proportion to the length. It does not differ much from the tract compriſed within the ancient kingdom of Ghizni. Timur Shah's Indian ſubjects are chiefly Afghans; the reſt, Perſians and Tartars of almoſt every denomination. His government is ſaid to be mild and equitable; with ſome degree of relaxation as to military diſcipline. This, in a government purely military, forbodes diſſolution.

The poſition of Candahar is ſtill more indeterminate, than that of Cabul; as being placed with a reference to the latter, and in the parallel aſſigned by the Perſian tables; which is 33°, or a degree and half to the ſouthward of Cabul. Its longitude cannot be collected from the Ayin Acbaree, becauſe there is a miſtake in the figures:

figures: it giving a higher number of degrees than for Cabul; reckoning from the Fortunate Iſlands. Mr. Forſter eſtimates the bearing of Ghizni (or Gazna) from Cabul, at S or S by W; and the diſtance 20½ farſangs, or 41 coſſes: and from Ghizni to Candahar S W, 103 coſſes. Theſe give a general bearing of S 33 W, 137 coſſes. Col. Popham's MS. gives 122 coſſes between Cabul and Candahar, in direct diſtance; and Tavernier 110. There appears a wide difference in theſe accounts: Mr. Forſter's bearing from Ghizni, is unqueſtionably too much ſoutherly, as is proved by the difference of latitude; therefore the diſtance ariſing from his compound courſe, is to be placed out of the queſtion. And Col. Popham's MS. ſays that the coſſes are to be reckoned at a mile and half (Britiſh, we may conclude) and then the 122 coſſes, produce only 96 Hindooſtanny coſſes; and theſe, at 42 to a degree, will give 138 G. miles. I have accordingly placed Candahar 138 miles from Cabul, and in lat. 33°, lon. 67° 5′: which is D'Anville's poſition of it, in his map of Aſia. In my map, it ſtands 5° 42′ weſt of Lahore; or 1° 55′ weſt of Cabul. The eaſtern geographers, according to M. D'Anville, allow 2 degrees between them.

Candahar, while the Perſian and Mogul empires were ſeverally undivided, was the frontier city and fortreſs of Hindooſtan towards Perſia; and was eſteemed the key of the weſtern provinces of the latter; and not unfrequently changed maſters. The Ayin Acbaree, claſſes, as belonging to Candahar, ſeveral provinces on the weſt of it, and which unequivocally belong to Perſia: but as the limits of the empire varied with the proweſs and abilities of the different Emperors, it may be concluded that Acbar extended them to the utmoſt. I believe there are no doubts entertained concerning the ancient name of Candahar: which is allowed to be the *Paropamiſan* Alexandria; from whence Alexander, directed his march northward, into *Bactria* and *Sogdiana*, that is, the modern countries of Balk, Bucharia, and Samarcand: and returned again to it, previous to his Indian expedition.

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The poſition of Ghizni, the ancient capital of the kingdom of the ſame name, is totally different from what M. D'Anville ſuppoſed. He has placed it in the N W extreme of Cabul: but Mr. Forſter found it in the very heart of that province. Geography is, indeed, very bare of particulars through the whole tract between Caſhmere and Candahar: although Mr. Forſter has contributed ſo much towards the improvement of it. He has ſhewn that Caſhmere ſtands nearly a whole degree to the north of the poſition aſſigned it, in our beſt maps: has taught us to diſtinguiſh certain branches of the Indus, which before, were either confounded together, or miſnamed. In particular, we learn from him, that the river which paſſes by the city of Cabul, is named the Attock; and joins the Indus in front of the city of Attock: and although the ſmalleſt river of the two (for it is not more than 100 yards wide, though deep) yet communicates its name to the other, during a conſiderable portion of its courſe.

Although this was the part of India, the firſt known to Europeans, yet at this day, we know leſs of it, than of moſt other parts: nor ought it to excite ſurpriſe; for the moderns have viſited India, on a very different errand than what the ancients did: ours being purely on the ſcore of maritime trade, until the downfal of the Mogul empire, opened the way to the acquiſition of territory: and that in the oppoſite corner of the empire. I have availed myſelf of the laborious reſearches of the celebrated D'Anville, to introduce ſeveral places, whoſe names he has identified on the authority of a Turkiſh geographer, whoſe works I am unacquainted with. From M. D'Anville's works alſo, I have copied the poſition of the northern mountains, which ſeparate India from the Tartarian provinces, as well as thoſe provinces themſelves; having, as I ſaid before, extended the map to Samarcand and Caſhgur, in order to ſhew the relative poſitions of the places ſituated near the common frontiers of Perſia, India, and Tartary. Thoſe who wiſh for more particular information, may conſult his map of Aſia publiſhed in

1751;

1751; as alfo his *Eclairciffemens* *, which accompanied that, and the map of India; the firft fection of which is particularly curious, and applies directly to this fubject. His *Antiquité Geographique de L'Inde*, deferves attention likewife: though I confefs I cannot follow Arrian in his *detail* of Alexander's marches, in the countries bordering on the weft of the Indus, for want of fuch unequivocal marks, as are to be found on the eaft fide of that river, in the courfes and confluences of the Panjab rivers. However, by the aid of the Ayin Acbaree, feveral pofitions in the march of Alexander may be afcertained; as the fecond volume of that work, under the heads of Cafhmere and Cabul, gives the names, dimenfions, and relative pofitions, of the fubdivifions of thofe countries. I think I can clearly perceive that Alexander never went fo far to the north as the city of Cabul; and that although his route is generally reprefented as very circuitous, and even traverfing the country from one extreme to the other; yet I apprehend, that on the contrary, it was tolerably ftraight, from Alexandria (or Candahar) to the Indus, near *Peucelaotis*, or Pehkely. Let us endeavour to trace his route generally:

Leaving Alexandria, he came to the river *Cophenes* †; which, by circumftances, ought to be the river that runs under the city of Nagaz: and the modern name of which, M. D'Anville has found to be *Cow*, in the Turkifh geographer above fpoken of. It is unfortunate, that neither Mr. Forfter's journal, nor Col. Popham's MS. give the particulars of any of the rivers on the road between Cabul and Candahar: the latter indeed, notes no lefs than five ftreams that crofs it: but leaves us in uncertainty as to their bulk, names, and future courfe. In Alexander's arrangement of boundaries, the river Cophenes was the eaftern limit of the province of *Paropamifus*; of which Alexandria, or Candahar, was regarded as

* This work is very fcarce, and might be reprinted, with emolument to the publifher.

† The names of places in the map, at page 102, are given according to ancient, as well as modern acceptation of them. The ancient names have a dafh under them.

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the capital: and I think it anſwers to the Nagaz river in this reſpect; and ſtill more in the diſtance marched by Alexander, in the interval between this river and the Indus. From the Cophenes river, Hepheſtion and Perdiccas, with a ſtrong detachment, were ſent into the country of *Peucelaotis* (according to Arrian; *Peucolaitis*, according to Strabo) near the Indus, where they were to make ready for ferrying the army over. This country, in name and ſituation agrees with the modern *Pehkely* or Puckley, lying on the north of Attock; and Hepheſtion's ſtay there muſt have been very conſiderable, previous to Alexander's arrival: as on occaſion of the revolt of the Prince of the country, the ſiege of his capital took up 30 days. Alexander himſelf, marched from the banks of the Cophenes againſt the *Aſpii*, *Thyræi*, and *Araſaci*; nations, whoſe ſituations, and modern names, I am utterly ignorant of; but conclude that they were inferior diviſions of the modern Cabul, and ſituated on the north-eaſt of Candahar; for, not to mention that Alexander would hardly purſue the ſame route as Hepheſtion did, which was to the eaſt; he afterwards ſailed *down the ſtream* of the Indus, to the place where the bridge was built: and every circumſtance ſerves to prove that his expedition was to the N E. In his way to the Aſpii, he croſſed two rivers, the *Choe* and *Euaſpla*; and defeating the Aſpians in a pitched battle, paſſed through the territories of the *Guræi*; and croſſed the river of the ſame name, with much difficulty, by reaſon of the depth and rapidity of its ſtream, and the nature of its bottom; which was compoſed of round ſlippery ſtones. He was at this time, on his way to the country of the *Aſſaceni*, or *Aſſacani*; and this is a point, at which I ſhall pauſe, to endeavour to aſcertain its poſition, from the nature of the circumſtances relating to it. The river *Gureus*, then, appears to have been the moſt conſiderable one that occurred ſince Alexander paſſed the Cophenes: it was deep, but yet fordable; for had his army croſſed it in boats, they would either have been ignorant of the nature of its bottom; or knowing it, they could

not have regarded it as an obſtacle. The deſcription ſuits the Attock river, which running under Cabul, paſſes on the eaſt of the territory of Ghizni (Ghuzneen, in the Ayin Acbaree) and joins the Sinde or Indus, in front of the city of Attock. The Guræi, therefore, anſwer to the Ghiznians; and their river to that of Attock. It is very difficult to judge of the length of Alexander's march from the Cophenes to the Gureus; but poſſibly it might be 70 or 80 road miles.

The country of Aſſacani, appears to border on the eaſt of the Gureus, and anſwers to *Iſſa-kyl*, a territory ſituated on the ſouth-eaſt of the city of Cabul *, and between that and Bijore. *Maſſaga*, the capital, being taken by aſſault, Alexander ſummoned *Bazira*, which we may conclude to be the territory adjoining to the Aſſacani; and here the modern diſtrict of *Bijore* preſents itſelf in a poſition that anſwers moſt unequivocally to that of *Bazira*; and the ſimilarity of the names is no leſs ſtriking. Bijore is a ſmall province bordering on the north of Piſhour (or Peiſhore) which is ſynonimous with Beckram †, and is confined by the rivers Indus and Attock. Its dimenſions are not more than 50 miles by 20, full of mountains and wilds, and inhabited by a ſavage and turbulent race. Its poſition becomes intereſting, as it contains the famous mountain of *Aornus*, the taking of which was one of the moſt brilliant exploits of Alexander, in theſe parts. The Ayin Acbaree gives no intimation of its containing any ſuch remarkable mountain: but deſcribes it generally as a very ſtrong country, and as having faſtneſſes, into which the inhabitants occaſionally retreat. According to the above particulars of the ſituation of Bijore, and the account of Alexander's proceedings after he left Aornus, I conclude that this celebrated mountain lies about 55 G. miles northward, or N N E, from Piſhour; and 85 from Cabul. Arrian deſcribes its baſe to be 18 or 20 miles ‡ in circuit; of vaſt elevation, and ac-

* Ayin Acbaree Vol. II. p. 195. † Ibid. p. 194 and 205.
‡ Reckoning 10 ſtades to a mile.

ceſſible

ceſſible only by one narrow path, cut out in the rock. On the ſummit was a great extent of arable and paſture land, with ſprings of water; ſo that a garriſon of 1000 men might ſubſiſt, without any extraneous aid. We may ſuppoſe it to be ſomewhat ſimilar to Gwalior *, or Rotas Gur in Bahar. The Indus does not paſs near Aornus; becauſe the diſtrict of Sowhad *proper* lies between the Indus and Bijore, according to the Ayin Acbaree.

M. D'Anville in his *Eclairciſſemens*, and *Antiquité de L'Inde*, informs us that the Sieur Otter, in his account of the return of Nadir Shah, in 1739, (a work I have never been able to meet with) deſcribes a remarkable mountain of the name of *Renas*, on the eaſt of the Attock river, and near the banks of the *Suvat:* and indeed, in the poſition, in which we might expect to find *Aornus*. The river *Suvat*, probably means that of *Sowhad*; a province bordering, as we have ſaid before, on the weſt of the Indus: and I ſhould ſuſpect that the Indus itſelf is intended by the river Suvat. M. D'Anville's reaſoning, to prove that Renas and Aornus are meant for the ſame word, is very curious: and I beg leave to refer the reader to page 17 of the *Antiquité de L'Inde*, where he will find it in the author's own words.

It appears that Alexander, after the taking of Bazira, and before he beſieged Aornus (notwithſtanding its proximity to the former) proceeded to the Indus, where he took poſſeſſion of the city and fortreſs of Peucelaotis, and ſeveral ſmall towns on, or near, that river: and as Hepheſtion and Perdiccas make their appearance here, I conclude this to be the city ſpoken of before, as ſuſtaining a ſiege of 30 days; which period might poſſibly expire about the time of Alexander's arrival: and the ſurrender might have been a conſequence of it.

We have before ſuppoſed the country of Peucelaotis to be the modern Pehkely: and the fortreſs and city in queſtion, was proba-

* See the Index, article Gwalior.

bly

bly the capital of it. The Ayin Acbaree deſcribes the province thus: it is ſituated on the weſt (or rather S W) of Caſhmere; with the country of Gehker to the ſouth; Attock to the weſt (or S W) Sowhad, which includes Bijore, on the N W; and Kenore on the north: its rivers are the Behut, Sinde (or Indus) and Kiſhengonga: and its dimenſions 66 B. miles by 47. The two circumſtances of the Indus and Kiſhengonga paſſing through it; and its bordering on the diſtrict of Attock (or Attock-Benaris) point out its general poſition very clearly. Mr. Forſter ſhews us that the Attock diſtrict extends 27 or 30 miles to the N N E of the city of that name: and it may poſſibly go ſomewhat farther northward; though probably not much. Here then we place the ſouthern limit of Pehkely, about 35 miles above the city of Attock, and extend it to the N N E, along the ſhores of the Indus; though much more of it lies on the eaſt of that river, than on the weſt. The Kiſhengonga being the common boundary of Pehkely and Caſhmere, proves that Pehkely has its greateſt extent from N E to S W: and Mr. Forſter, who avoided the Pehkely diſtrict, and did not ſee the Kiſhengonga, muſt have been to the eaſt of it, in his journey from Caſhmere to Piſhour. A ſlight inſpection of the map, at page 102, will convey a clearer idea of the relative poſitions of the ſeveral provinces juſt mentioned, than any written deſcription: and to that, I ſhall beg leave to refer the reader.

If I underſtand the matter right, Alexander left the rock Aornus behind him, as I ſaid before, when he proceeded to *Peucelaotis*, to receive its ſurrender: and afterwards marched back again (that is, to the N or N W) to inveſt the rock; taking the city of *Embolima*, which ſtood near it, in his way. And after the taking of Aornus, he made a ſecond expedition into the country of the Aſſacani, ſtill tracing back his ſteps to the northward. His errand among the Aſſacani (Iſſa-kyl) this ſecond time, was to get poſſeſſion of ſome elephants, which were ſaid to be ſent thither, to prevent their falling into his hands. It was doubtleſs an object to him, to be pro-

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vided with a ſufficient number of elephants, in order to oppoſe, with a proſpect of ſucceſs, thoſe of his enemies, when he ſhould arrive on the eaſt ſide of the Indus. And although Alexander might, from his ſuperior knowledge of diſcipline, deſpiſe the attacks of thoſe animals, as every accompliſhed general in every age has done; yet from an equal degree of knowledge of the human mind, he might conclude that his ſoldiers in general would feel themſelves poſſeſſed of more confidence, when, in addition to their ordinary means of attack, they could alſo employ that, which appeared the moſt formidable in the hands of their enemies. The elephants were at laſt found, in the paſtures near the Indus, and ſent off by land to the grand army; which we may ſuppoſe to be on their march, towards the bridge. He in the mean time, poſſibly tired of marching; or for the ſake of novelty, wiſhing to embark on the Indus; cauſed trees to be felled, with which having conſtructed boats (according to Arrian) he ſailed down the ſtream to the bridge. Poſſibly he made ſome rafts, which might be fully equal to his wants; but it is difficult to conceive, by thoſe who are acquainted with the nature of conſtructing any kind of boats, that he either waited to build them; or that he carried with him the requiſites for their equipment, on ſo ſudden an emergency.

I have before (page 92) ſuppoſed Attock to be the place where Alexander croſſed the Indus: and over and above the reaſons there aſſigned for it, I will now add another: which is, that after he came to the bridge, (which was compleated before his arrival) he made an excurſion by land, into the country adjacent to the weſtern bank of the Indus, to view the city of *Nyſa* (ſuppoſed by D'Anville to be Nagaz, the *Nagara*, or *Dyonyſiopolis* of Ptolemy) and he is then ſaid to have entered the country, that lay between the two rivers, Cophenes and Indus. We have before taken it for granted that the Cophenes is the river that runs by Nagaz, and falls into the Indus about 30 miles below the city of Attock; and as the river Attock joins the Indus in front of the city of that name, it is clear that

that until he came oppofite to that city, he could not be between the Cophenes and Indus. And if it be faid that the Attock river, was the Cophenes, he had all along been between the Cophenes and the Indus; and Arrian's words could have no meaning. But it is probable on every account that Attock was the croffing place: there the mountainous country from the north-eaft terminates, and the plains of the Panjab begin; a circumftance highly favourable to his future plan of penetrating into India, and no lefs fo to the conftruction of his bridge; which was no eafy matter to accomplifh, acrofs a river fo wide and fo rapid as the Indus; but which was lefs difficult in a level country than in a mountainous one. The bridge was undoubtedly made of boats, as Tamerlane's was, in 1398: but Tamerlane croffed at a feafon when the river, was (comparatively) low; Alexander, after it was confiderably fwoln, with the periodical rains.

By Alexander's fending off Hepheftion from the Cophenes, to provide the means of paffing the Indus in the country of *Peucelaotis* (Pehkely) it would appear that he had an intention of croffing it higher up than he afterwards did: and it was natural enough, before he had learnt from Hepheftion that the fituation was in every refpect, unfavourable.

It is unlikely that Alexander, fo far from vifiting Cafhmere, as fome have thought, ever had heard any diftinct account of it; otherwife fome of the writers of his life, would furely have taken notice of fo extraordinary a country: nay, I conclude, according to my idea of Alexander's character, that he would certainly have vifited it, when he returned to the Hydafpes, to embark for the Indus: and was, in fome degree at leifure; if a man who is eternally preparing work for himfelf, can be faid to have any.

As M. D'Anville's account of Alexander's progrefs in the Antiquité de L'Inde, fuppofes that the Behut, or Chelum (he calls it Genave) the wefternmoft of the Panjab rivers, was the Indus of Alexander; it is neceffary to obferve, that M. D'Anville's opinion

was formed on the ſuppoſed certainty of that Monarch's having only four rivers between him and the country of the Praſii, when he had croſſed the Indus. That learned geographer had not the true geography of the Panjab before him: and, in fact, Alexander had all the five rivers of the Panjab to croſs, after he arrived on the eaſt ſide of the river, which he ſuppoſed to be, and was in reality, the Indus.

I return from this long digreſſion concerning Alexander, to the account of the modern geography of the tract in queſtion. I am convinced that the more our knowledge of the particular geography of the countries, on both ſides of the upper parts of the Indus, increaſes; the clearer will be our ideas of Alexander's marches. The commentaries of the Emperor Baber, quoted in the Ayin Acbaree, may be a fruitful ſource of information; as they treat particularly of the province of Cabul.

Between Candahar and Meſchid-Sirr, on the ſouth coaſt of the Caſpian ſea, Mr. Forſter's route lay in a pretty ſtrait line through Herat, Terſhiſh, and Buſtan (Biſtam in D'Anville) and this circumſtance is favourable to the deſign of uſing his ſcale of computed farſangs, through that ſpace. He eſtimates this meaſure roundly at 2 coſſes; or about 4 Britiſh miles. His whole number of farſangs between Candahar and Meſchid is 280 *, and the diſtance according to M. D'Anville, (the beſt authority I know) is 15° of longitude, wanting 12′, which with the difference of latitude between 33° and 37°, gives 772 G. miles. The farſang then, pro-

* The whole number, ſummed up, is 276; but there is an omiſſion of the diſtance of a ſtage between Naſirabad and Shawroot; and this I have allowed 4 farſangs for.

duces 2,757 G. miles of horizontal diſtance; or allowing for the inflexions of the road 3,71, or near $3\frac{3}{4}$ Britiſh miles; not very wide of Mr. Forſter's eſtimation: for 2 Hindooſtanny coſſes may be taken at 3,8 B. miles. According to this proportion, about $21\frac{3}{4}$ farſangs, will make a degree of a great circle. M. D'Anville's ſcale of *Paraſangas* in his Euphrates and Tigris, are at the rate of $25\frac{1}{2}$ to a degree. With the above ſcale, I have compared ſome of the intermediate places, in M. D'Anville's map of Aſia, and find that Herat, the capital city of Koraſan, is too far to the weſt by 1° 37′ of longitude; and Terſhiſh (or Terſhiz) by 15′, in reſpect of the Caſpian ſea. Theſe poſitions I have ventured to alter: for it is probable that M. D'Anville might not have been poſſeſſed of an itinerary, ſo accurate as Mr. Forſter's. Between Candahar and Gimmock, Mr. Forſter eſtimates the bearing, at W and W by N: and the ſhort diſtance between the latter, and Herat, N. No reaſon is aſſigned for the ſudden change of courſe. From Herat to Buſtan, W by N, and the remainder of the way, W, W by N, and N W. All theſe bearings are tolerably accurate.

This gentleman furniſhes us with new ideas reſpecting the bearing of the chain of mountains, that is commonly ſuppoſed to penetrate Aſia from weſt to eaſt, under various names: or rather, he brings us back to the ideas left us by the ancients. It is unqueſtionable, that the Greeks and Romans knew more of the particular geography of Perſia, than the *modern Europeans* do: although the parts that are known to us, may be arranged with more geometrical preciſion. This chain or ridge, which riſes in leſſer Aſia, and was anciently named *Taurus*, and runs eaſtward through Armenia; and from thence deviating to the S E, ſhuts up the ſouth coaſt of the Caſpian ſea; was continued by Ptolemy, under the names of *Coronus*, *Sariphi*, and *Paropamiſus*: dividing Hyrcania and Tapuri, from Parthia; Margiana from Aria; and Bactria from the province of Paropamiſus (or, according to modern geography, dividing Mazanderan, or Taberiſtan, from Comis; Dahiſtan from Koraſan;

 and

and Balk from Sciſtan, or Sigiſtan) and finally was made to join that vaſt ridge, which under the name of *Indian Caucaſus*, divided India from Bactria; and afterwards took the names of *Imaus* and *Emodus*; ſeparating India from Scythia. It is not known to the moderns, what courſe this chain takes, after it leaves the neighbourhood of the Caſpian ſea: or whether it does in reality join the Indian Caucaſus: but the probability of it is ſtrong, although it is not after the manner M. D'Anville ſuppoſed: for he gives it an E S E direction from the Caſpian, and makes it paſs on the ſouth of Herat. But had this been the caſe, Mr. Forſter muſt have croſſed it in his way from Candahar; inſtead of which, he croſſed no mountains until he came within 90 miles of the Caſpian ſea; ſo that he left the continuation of the Indian Caucaſus, if ſuch there be, on his right; or to the northward; and I really believe that the ridge does exiſt, under the form deſcribed by Ptolemy: for the rivers croſſed by Mr. Forſter, had all a ſoutherly courſe; proving that the high land lay to the north, although out of ſight: therefore the connexion between the Caſpian mountains, and the Indian Caucaſus, muſt be by the north of Koraſan. As for the ridge that Mr. Forſter croſſed near the Caſpian ſea, it had a north and ſouth direction, and anſwers to the mountains *Maſdoramus* of Ptolemy, which ſhut up the eaſtern ſide of *Parthia proper*, which lay on the S E of the Caſpian. The modern name of this ridge is *Kana-hoody*; and Mr. Forſter remarks that the elevation of it is far greater on the weſt, than on the eaſt: ſo that the lands of Koraſan, are in general, more elevated than thoſe towards Iſpahan. The Kana-hoody mountains are thoſe which M. D'Anville has extended to Herat and Cabul; but we find their courſe to be quite different; but how far they extend to the ſouth or S E is ſtill a queſtion.

I confeſs it was a matter of ſurpriſe to me that there ſhould be no mountains between the province of Cabul and Terſhiſh, in the route paſſed by Mr. Forſter: he deſcribes nothing but ſcattering hills, where the maps uſually repreſent lofty chains of mountains.

Through-

Throughout his whole route from Candahar to the Caſpian ſea, he croſſed no ſtream that was too deep to be forded, although the journey laſted from the beginning of Auguſt, to the latter end of January.

I have introduced Alexander's march after Beſſus, &c. in order to render the map more compleat. We may trace the ancient *Tapuri*, in Taberiſtan; *Dahe*, in Dahiſtan; *Arachoſia*, in Arokhage; and *Aria*, in Herat, or Harat. Cau-caſus, and Paro-pamiſus, the names of ridges of mountains on the N W of India, derive part of their names from *Ko* and *Pahar*, words which ſignify mountains and hills in the Indian languages. Of Imaus, we have ſpoken before, in page 96. Probably, the name of the Caucaſus of Georgia, had the ſame derivation, as that of India.

I ſhall cloſe the account of this ſmall map, with an obſervation or two, reſpecting ſome geographical miſconceptions which I have obſerved to prevail, even among ſome of the learned. The firſt is, that the modern Bucharia (or Bocharia) is the ſame with the ancient Bactria. This is ſo far from being the caſe, that Bucharia is ſituated beyond the river anciently called the *Oxus*, or the modern Jihon: and is the country anciently named *Sogdiana*; from *Sogd*, the valley: that is, the beautiful valley, in which Samarcand (anciently *Maracanda*) is ſituated. Bactria, or Bactriana, on the contrary, lay on the *ſouth* of the Oxus; and comprehended the preſent provinces of Balk and Gaur; and probably part of Koraſan. Maver-ul-nere, is alſo applied to the country beyond the Jihon; and between the lower parts of the courſes of that river, and the Sirr, or ancient *Iaxartes*: Mavel-ul-nere ſignifying *the country beyond the river*; or *Tranſoxiana*.

The other miſconception reſpects ancient *Parthia*. Very inaccurate ideas prevail concerning the local poſition of that country. Thoſe whoſe knowledge of it is collected chiefly from its wars withthe Romans, conceive Parthia to be only the countries bordering on the Euphrates and Tigris; as their boundaries, on the extenſion of their em-

pire,

pires, met thoſe of the Romans. Strabo has either been miſtaken in this point, or has not fully expreſſed himſelf, where he deſcribes the Parthians who defeated Craſſus, as the deſcendants of thoſe Carduchians, who gave ſo much trouble to Xenophon, during the celebrated retreat of the Greeks. It is probable, or at leaſt poſſible, that the Parthians might have had in their army at that time, ſome detachments from among thoſe hardy mountaineers; as the Carduchi were then numbered among their ſubjects: but the bulk of the Parthian army, came from Perſia, their proper country. Whoever conſiders the ſlight ſubjection in which the Carduchians were held, even during the vigorous reigns of the firſt Perſian Emperors, will not expect that the Parthians had many recruits from that quarter. The hiſtory of the Parthian geography is briefly this: Parthia proper, was a ſmall province, very near to the ſouth-eaſt extreme of the Caſpian ſea; which territory, after the diviſion of Alexander's empire, fell to the ſhare of the Seleucidæ, Kings of Syria, and of the eaſt, about 300 years before our æra. About 50 years after, Parthia rebelled; and together with Hyrcania, and other adjoining provinces, became an independant ſtate, under Arſaces. As the empire of the Seleucidæ grew weaker, the Parthians extended their country weſtward; and the fine province of Media (now Irak-Ajami) fell to them: and within a century after the foundation of their ſtate, it had ſwallowed up all the countries from the Indus to the Euphrates, Bactria included: and this province had thrown off the yoke of the Seleucidæ, long before Parthia. The Parthian conqueſts in Armenia, about 70 years before Chriſt, brought them acquainted with the Romans; whoſe conqueſts met theirs, both in that country and in Syria. The Parthians, together with their conqueſts, had advanced their capital weſtwards; and had eſtabliſhed it on the Tigris at Seleucia, or rather Cteſiphon (near the preſent Bagdad) before their wars with the Romans commenced. The particulars of their firſt wars with the Roman people, which continued about 65 years, are too well known to be repeated, here,

had

had this been a proper place for it; ſuch as the expeditions of Pompey, and Anthony; and the defeat of Craſſus. On occaſion of this laſt event, the Parthians extended their conqueſts further weſtward, but were afterwards compelled to retire: and they generally loſt ground in Armenia and Meſopotamia, during the time of the Roman Emperors. Trajan penetrated to their capital; and ſatisfied his curioſity by embarking on the Indian ſea. The moderation of Adrian reſtored the ancient boundary of the Euphrates. In A. D. 245, Perſis, or Perſia proper, which had hitherto ranked as a province of Parthia, gained the aſcendency; and under Artaxerxes, put an end to the dynaſty of the Arſacidæ, and reſtored the ancient name of Perſia to the empire; after that of Parthia had exiſted about 480 years. So that, in fact, the Parthian empire, conſidered generally, was the Perſian, under another name.

SECTION

SECTION IV.

The Tract situated between the KISTNAH *River, and the Countries traversed by the Courses of the* GANGES *and* INDUS, *and their principal Branches: that is to say, the middle Parts of* INDIA.

THIS very extensive tract is bounded on the north-east by the soubahs of Bengal, Bahar, Allahabad, and Agra; on the N W by the course of the river Puddar; on the east and west by the sea; and on the south by the river Kistnah or Krishnah: and comprehends in general the soubahs of Guzerat, Malwa, Berar, Orissa, Candeish, Amednagur (or Dowlatabad) Visiapour (or Beja-pour) and Golconda. It is about 800 British miles in length from N W to S E; and 600 wide: and has in and about it, many points that are determined either by cœlestial observations; or inferred from such points, by the help of surveys or good charts.

The fundamental points on which the construction and scale of this part depend, are as follows:

On the north and north-east, Agra, as determined by observations and survey (page 48); and Calpy, Chatterpour, Rewah, Burwah, and Balasore, inferred from measured lines drawn from other places of observation. On the east, Cattack, as determined by Col. Pearse, (page 11). On the south, Masulipatam, as determined by Col. Pearse, and Capt. Ritchie (page 12). On the west, Bombay, by the observations of the Hon. Mr. Howe (page 31) and Surat,

Surat, Cambay, and Diu Point, inferred from charts and ſurveys (page 33). And in the interior parts, Narwah, Sirong, Bopaul, Huſſingabad, Burhanpour, Poonah, Amedabad, by Mr. Smith's obſervations, and General Goddard's march: Nagpour, Ruttunpour, and Gurrah, by Mr. Ewart's obſervations and ſurveys: and Aurungabad, Hydrabad, Sumbulpour, Agimere, and Areg (near Viſiapour) by miſcellaneous materials. I ſhall proceed firſt, to give the authorities by which theſe *primary ſtations* or points, were determined; and afterwards ſhew how the intermediate parts were filled up, in detail. The conſtruction of the ſea coaſts, on both ſides of this tract, has been already diſcuſſed, in ſection I: and I ſhall begin my account of the conſtruction of the inland parts, with Mr. Smith's and General Goddard's lines acroſs the continent, from Calpy to Bombay, and Surat.

The Rev. Mr. Smith ſet out from Calpy with Col. Upton in 1776, on an embaſſy to the Mahratta Court at Poonah; and fell into the great road from Delhi and Agra to the Deccan, at the city of Narwah; which is ſituated on the river Sindeh, near the entrance of a famous paſs, that leads through the chain of mountains, that divide Malwa from Agra. From Narwah, he proceeded to Sirong, a city of Malwa, ſubject to Madadjee Sindia: and from thence to Burhanpour, the capital of Candeiſh; and at one period, of the Deccan alſo. It is yet a flouriſhing city; and is ſituated in the midſt of a delightful country. In his way to this place from Sirong, he croſſed the famous river Nerbuddah; formerly the reputed boundary of the Deccan, to the north. From Burhanpour, he went to Poonah, the capital of the weſtern Mahratta empire, croſſing the heads of the Godavery and Beemah rivers in his way: and from Poonah to Bombay. During all this route, he took obſervations of latitude and longitude, as often as opportunity offered; which was not unfrequently: and with theſe, together with the intermediate bearings of the road, he conſtructed a map, which is no leſs valuable on the ſcore of its general accuracy, and extenſive

 infor-

information; than curious, by the novelty of its ſubject. We had then for the firſt time, a geographical line, on which we could depend, drawn acroſs the continent of India, through the principal points between Agra and Poonah; and which, by eſtabliſhing ſo many intereſting poſitions, has enabled us to correct ſeveral routes, which, without it, would have remained very indeterminate. Narwah, for inſtance, corrects the bearing and diſtance of the road between it, and Agra; Sirong, the road to Ougein, and Mundu; and Burhanpour, the poſition of Aurungabad; and the bearing of the roads to Surat, Hydrabad, and Nagpour.

General Goddard's celebrated march from Calpy to Surat, touches on the route of Mr. Smith, at Calpy, Sirong, Bopaul, Hurdah, and Burhanpour: and the map of it, which remained in the General's poſſeſſion at the time of his death, was ſaid to be drawn from the materials furniſhed by the field engineers; who meaſured the diſtances, and took the bearings of the road, the whole way. On a compariſon of the difference of longitude ſhewn by this map, with that reſulting from Mr. Smith's obſervations, the difference was 6′ 35″; the meaſured line giving ſo much more than the obſervations.

	°	′	″
General Goddard's map gave the miles of weſting, between Calpy and Sirong $109\frac{1}{4}$, or difference of longitude - - - - -	2°	0′	15″
And from Sirong to Burhanpour $96\frac{1}{4}$, miles of weſting, or difference of longitude - -	1	44	20
Whole difference between Calpy and Burhanpour	3	44	35

	°	′	″
And, Mr. Smith's longitude of Calpy is -	80°	0′	0″
——————————— Burhanpour	76	22	0
Difference of longitude by obſervation	3	38	0

And

And in the interval between Calpy and Sirong, about 2 degrees, the meaſurement exceeded the difference of longitude by obſervation 4 minutes; ſo that the meaſured line exceeded the diſtance by obſervation, proportionally through each interval.

Now it remains to be obſerved, that Calpy, on the ſouth bank of the Jumna river, the laſt point in the ſurvey, that way, and the firſt in Mr. Smith's route; ſtands in my map, in lat. 26° 7′ 15″, and in lon. 80° 4′; while Mr. Smith reckons it in 80°. Again, on the weſt ſide of India, I have taken Bombay at 72° 40′ (ſee page 31) and Mr. Smith places it in 72° 45′: ſo that, in fact, he is 4′ to the weſt of my account at Calpy; and 5′ to the eaſt of it at Bombay: his whole difference of longitude between Calpy and Bombay, being 9′ leſs than what I have taken it at. And again, it has been obſerved that Mr. Smith reckons 6′ 35″ leſs between Calpy and Burhanpour, than Goddard's meaſured route gives. It is certain that obſervations of longitude, taken in the ordinary way, cannot be expected to correct ſmall errors in diſtance, ſo well as meaſured lines; and therefore it is no impeachment of the general utility of Mr. Smith's obſervations, that I have ventured to deviate from them, in fixing the poſitions of ſome places in the road acroſs the continent.

Narwah, or Narwha, is the firſt point that I ſhall notice in Mr. Smith's map, from Calpy. He places this city and fortreſs in lat. 25° 40′; lon. 78° 17′; his difference of longitude from Calpy, being 1° 43′. Mr. Cameron, who ſurveyed the roads and country between Etayah and Sirong, reckons 1° 3′ difference of latitude, and 57 miles of weſting, or 1° 4′ difference of longitude from Etayah to Narwah. Now, Etayah being by the ſurvey in 26° 43′ 40″ lat.; and 79° 17′ lon.; the latitude of Sirong comes out perfectly right, but the longitude is 4′ to the weſt of Mr. Smith's account; or 78° 13′. I cannot, however, determine with what degree of exactneſs, this ſurvey was made; and I have placed Narwah in 79° 17′.

Sirong (called alſo Seronge) by Mr. Smith's obſervations, is in lon. 78° 4′; and as General Goddard's map makes it 2° of longitude weſt from Calpy (which is in 80° 4′ by the above account) they both agree in this point, although they differ in the quantity of weſting between the two meridians of Calpy and Sirong: for Mr. Smith's difference of longitude is only 1° 56′; and the meaſured line exceeds it by 4 minutes. The latitude of Sirong is 24° 4′ 40″. It is proper to obſerve, that General Goddard's route croſſed Mr. Smith's about 6 miles to the S E of the latter place; but the ſurvey was *cloſed* to it.

Between Calpy and Sirong, General Goddard's route paſſed through Chatterpour, a city in the weſtern quarter of Bundelcund (or Bundela). This place was formerly viſited, and its poſition determined by menſuration, from Rewah; by Capt. Carter. He placed it in lat. 24° 58′ 30″; lon. 79° 56′ 30″. General Goddard's route repreſents it as being half a minute in latitude more to the north, that is in 24° 59′; and 3′ 30″ more weſterly in reſpect of Calpy. As it was fixed by a meaſured line drawn weſtward from Rewah, its longitude ought to be better determined by it, than by a meridional line drawn from Calpy; and accordingly, I have not altered its poſition.

Bopaltol is the next place where the roads meet; Mr. Smith's longitude of it is 77° 48′, and lat. 23° 13′ 30″. General Goddard's map gives 32 G. miles, or 35′ 15″ of longitude, from Sirong; making Bopal in 77° 28′ 45″. I have placed it in 77° 28′ lon.; and 23° 14′ latitude. It appears unaccountable that there ſhould be no leſs than 19′ difference, between Goddard's account and Mr. Smith's, in the longitude of Bopaul. I copied the longitude, as it ſtands above, from Mr. Smith's map.

Hurdah, on the ſouth of the Nerbuddah river, is the next point of junction of the two routes. This, Mr. Smith places in 77° 21′ 15″; and by Goddard's line, it comes out 1′ 30″ more to the weſt; or 77° 19′ 45″. It will be recollected, that as General Goddard

at

at ſetting out, was 4′ to the eaſtward of Mr. Smith's account (at Calpy) Hurdah will be 5′ 30″ on the whole, more to the weſtward, than Mr. Smith's difference of longitude from Calpy, would give.

Between Bopal and Hurdah, General Goddard's route makes a large elbow, or angle, to the ſouth-eaſt, to Huſſingabad Gaut, on the ſouth bank of the Nerbuddah river; and on the frontiers of Nagpour, the eaſtern diviſion of the Mahratta empire: thus eſtabliſhing a moſt uſefnl primary point or ſtation, in a quarter where it was the moſt wanted. Huſſingabad is placed in lat. 22° 42′ 30″, lon. 77° 54′; and about 140 G. miles to the N W of Nagpour city.

The two routes run often into, and acroſs each other, between Hurdah and Burhanpour. The latter, as is ſaid before, is by Mr. Smith's obſervation, in lon. 76° 22′; and in lat. 21° 19′: and by Goddard's meaſurement, which gives 3° 44′ 35″ from Calpy, in lon. 76° 19′ 25″; which, rejecting the ſeconds, is the longitude I have adopted for it; not altogether on the evidence of the meaſured diſtances themſelves, but becauſe they agree with the whole difference of longitude ariſing from the obſervations adopted in the map, between Calpy and Bombay. (ſee page 130).

Burhanpour is a very fine city, and was one of the earlieſt conqueſts made in the Deccan. In Acbar's diviſion of the empire, it ranks as the capital city of the ſoubah of Candeiſh. It is now in the hands of the Poonah, or weſtern Marattas. About 20 miles to the N E of it, is a very ſtrong fortreſs named Aſeer or Aſeergur.

The final ſeparation of the two routes, is at Burhanpour, from whence Goddard went weſtward to Surat; and Smith, ſouth-weſtward, to Poonah. The meaſure of the road to Surat gives 3° 30′ 45″ difference of longitude; which taken from 76° 19′, leaves 72° 48′ 15″ for the longitude of Surat; which I have adopted. This ſubject has been already diſcuſſed, in the firſt ſection (page 32) where it is obſerved, that the different authorities between

Bombay and Surat, gave 10′ difference of longitude between them; by which (as Bombay is taken at 72° 40′) Surat would be in - - - - - 72° 50′ 00″

If Mr. Smith's obſervations at Burhanpour was adopted 72° 22′, then it would be in -	72 51 15
If his longitude of Bombay, 72° 45′, then -	72 55 00
If Mr. Howe's - 72 40, with an allowance of 8′ 15″ inſtead of 10′ difference of lon.	72 48 15

The laſt point in Mr. Smith's route, is Poonah, and the longitude given for that, is 74°; or 1° 15′ eaſt of Bombay. But as I have taken Bombay at 72° 40′, Poonah, to preſerve its proportional diſtance, ſhould be in 73° 55′; which I have accordingly placed it in; ſo that it ſtands in reſpect of Burhanpour only 2 minutes farther to the weſtward, than Mr. Smith places it. Its latitude is 18° 30′. Between Burhanpour and Poonah, Mr. Smith's map eſtabliſhes ſome uſeful points, from which other routes may be laid off; ſuch as Nuſſerabad, Chandor, Unkei-Tenki, Bahbelgong, and Nimderrah Gaut.

Poonah is the capital of the weſtern Mahratta empire, and is ſituated about 30 miles on the eaſt of the Gauts; 100 road miles from Bombay; and about 75 from the neareſt ſea coaſt. It is meanly built, and not large; and lies quite open and defenceleſs. Pooroonder, a fortreſs on a mountain, about 18 miles to the E S E of Poonah, is the place of refuge in caſe of invaſion: there the archives of government are depoſited; and there I believe the principal officers uſually reſide. Whenever an invaſion has happened, the Mahrattas never thought Poonah a place worthy of defence; and have accordingly deſtroyed it with their own hands. In a ſtate that can conveniently exiſt without a great capital, no doubt but that great advantages are gained, in war, by a releaſe from ſuch an incumbrance. An overgrown capital, full of rich inhabitants, and a kind of general depoſitory of wealth, however pleaſant it may be, as it reſpects poliſhed ſociety, and the elegancies of life; yet from the

the greatneſs of its extent, and other circumſtances, incapable of defence; muſt be conſidered as a great political evil in a ſtate: it is like a fortreſs that expoſes its weakeſt part to the enemy, and points his attacks: and to purſue the allegory, there may be ſome danger of the garriſon's ſacrificing the intereſt of the empire at large, in order to preſerve their own property, in the hour of aſſault. The Scythians, who were not chained to the ſoil, could never be conquered: and thoſe who have no large capitals, ſtand in the next degree of ſecurity; all other circumſtances taken into the caſe. If the queſtion be conſidered, as it concerns morals, the objections are yet ſtronger: for the larger the capital, the greater will be the proportion of the population that is corrupted.

Amedabad, the capital of Guzerat, was the extreme point of General Goddard's marches to the northward, in the province of Guzerat. In the firſt ſection, a compariſon was made between the ſcale and bearing of the map of General Goddard's marches in Guzerat, and thoſe of the ſurveys taken between Surat and the Myhie river; and it was found to agree ſo well, that the line between Brodera and Amedabad might be very ſafely adopted. The bearing was N 36° W, and the diſtance 53,2 G. miles; giving for the poſition of Amedabad, 22° 58′ 30″ lat.; and 72° 37′ lon.; or 3′ weſt of Bombay. By M. Thevenot's account, the latitude is 23° and ſome odd minutes: and 23° by the Ayin Acbaree.

Amedabad is a very conſiderable city, and ſucceeded Mahmoodabad, as capital of Guzerat. It is one of the beſt fortified cities of Hindooſtan; and made a good defence when taken by General Goddard in 1780. On the peace of 1783, it was reſtored to its former poſſeſſors, the Poonah Mahrattas. Travellers have dwelt much on the beauty, and convenient ſituation of this city, which is in a level country and on the banks of a ſmall navigable river, named Sabermatty; and which, together with other confluent ſtreams, falls into the head of the gulf of Cambay, near to the city of that name. Cambay, is indeed, the port of Amedabad, and is diſtant

diſtant from it about 56 road miles. It is a large city, and appears to be the *Camanes* of Ptolemy; although the gulf, which is now denominated from Cambay, had then its name from Barygaza, or the modern Baroach.

Aurungabad is a point of conſiderable importance to the conſtruction of the weſtern part of the tract in queſtion; and although we have neither its latitude, longitude, nor diſtance *accurately meaſured* from any one point; yet the ſort of coincidence that ariſes between a number of eſtimated routes, from 6 different places, in oppoſite directions, round it, impreſs a certain conviction of its being placed nearly in its true poſition. It will be neceſſary to particularize the principal of theſe routes. One of them regulates alſo the poſitions of Hydrabad, Beder, and Mahur; and is that of M. Buſſy from Maſulipatam. The copy from whence I have collected my ideas on the ſubject, is that included in the late Mr. Montreſor's map of the ſouthern part of India. As his map goes no farther weſt than Aurungabad, we may conclude that he has not altered the original bearing and diſtance, with a view to reconcile its ſituation to any other place to the north or weſt.

Maſulipatam is already placed in the map, in lat. 16° 8′ 30″, lon. 81° 12′, on the authorities of Col. Pearſe and Capt. Ritchie (ſee page 12). This is a city and port of trade, near the mouth of the Kiſtna river; and appears to be ſituated within the diſtrict named *Meſolia*, by Ptolemy. Between this place and Bezoara (or Buzwara) a fort on the north ſide of the Kiſtna river, M. Buſſy's route allows only 36 G. miles; but as there is exiſting a map of Major Stevens's, which fixes the ſaid diſtance at 40,3 G. miles, I have adopted it; and allowed M. Buſſy's authorities to commence only at that point. Bezoara, ſo placed, is in lat. 16° 33′; and lon. 80° 39′. Then from Bezoara to Aurungabad, the bearing is given at W 35° 10′ N, 323 G. miles; producing 3° 6′ difference of latitude; and 264 of weſting; or difference of longitude (in lat. 18°) 4° 38′. This would place Aurungabad in lat. 19° 39′, lon. 76° 1′.

Buſſy's

Buſſy's (or rather Montreſor's) whole diſtance from Maſulipatam to Aurungabad, was 359.

Let us now examine what *data* we have to check this long line of M. Buſſy's, from the ſide of Surat, Poonah, and Burhanpour. The poſition of Surat has been juſt accounted for: and Noopour, a city on the road from Surat to Burhanpour, is by Goddard's route 59′ of longitude to the eaſt of Surat; or in lon. 73° 47′ 15″. And from this place to Aurungabad, Tavernier reckons 105 coſſes; which, at 42 to a degree, is 150 G. miles of horizontal diſtance. Now, Noopour, Aurungabad, and Bezoara, lie as nearly as poſſible, in a right line, whoſe extreme length, is 475 G. miles. Tavernier's 150, added to Buſſy's 323, make up 473; or the whole ſpace, within 2 miles. But from the nature of a march of an army in a warm climate, great part of which, is often made in the night, it muſt neceſſarily require correction; in the bearing at leaſt, and probably in the diſtance too. Nor can the 105 coſſes of Tavernier, be expected to be even ſo correct as the march: it is therefore a matter of ſurpriſe that only ſo ſmall a difference ſhould have ariſen. It ſhould be remembered that 4,3 miles were added to M. Buſſy's original diſtance, between Maſulipatam and Bezoara; ſo that the whole original error was 6,3; if we do not refer a ſhare of it to Tavernier's eſtimated diſtance. It is proved in another inſtance by Major Gardner, in Peach's march from Ellore towards Warangole, that M. Buſſy's geographer has given too little diſtance. This is probably an error of the compiler, not of the ſurveyor; it being an error of a different kind from what might have been expected in the ordinary way of meaſuring diſtances with a perambulator *.

The latitude of Aurungabad is inferred from its diſtance from Burhanpour given by Golam Mohamed † at 66 coſſes; and as the

* That long diſtances *may* be accurately meaſured by a perambulator, I need only mention that during the Bengal ſurvey, I meaſured a meridian line of 3 degrees, with a perambulator, and found it to agree minutely with the obſervations of latitude. However, due allowance was made for the irregularities of the ground, whenever they occured. The country indeed, was flat the whole way.

† A ſepoy officer ſent by Col. Camac, in 1774, to explore the roads and country of the Deccan, and to gain intelligence concerning the Mahratta powers.

T bearing

bearing is not far from meridional, we may ſtate the difference of latitude at 1° 34′; which taken from 21° 19′, the latitude of Burhanpour, leaves 19° 45′, for that of Aurungabad*. Now, M. Buſſy's line, gives only 19° 39′; which is 6′ too far ſouthwardly, by this account. If 19° 45′ be adopted, ſome further addition muſt be made to the line of diſtance from Bezoara; but it is too trifling a matter to require diſcuſſion. In effect, the longitude of Aurungabad by theſe *data*, will be 76° 2′ 30″; lat. 19° 45′.

Two more lines of diſtance are given, from Nimderrah Gaut and Bahbelgong; two points in Mr. Smith's route, on the weſt and S W of Aurungabad. Nimderrah is in lat. 19° 12′ 45″, lon. 74° 54′ 30″: and Bahbelgong in lat. 20° 45′, lon. 74° 51″ 30″. M. Anquetil du Perron furniſhes theſe diſtances. That from Nimderrah to Aurungabad, he reckons 32 coſſes; and that from Bahbelgong 34^{3}. Now, as the diſtance between Poonah and Nimderrah, is known, it furniſhes a ſcale for the reſt of his route. He makes this diſtance 34½ coſſes; but it is clear that he reckoned by ſome other ſtandard than the common coſs (poſſibly he reckons leagues and coſſes the ſame, as we ſhall have occaſion to remark in his route from Goa to Poonah) for the diſtance being 69,7 G. miles of horizontal diſtance between Poonah and Nimderrah, it ſhould rather be 48½ coſſes, than 34½. However, taking his diſtance for a ſcale, whatever the denomination may be, the diſtance between Nimderrah and Aurungabad, will be 64,7 G. miles; and that from Bahbelgong, 70,2. And the medium of theſe accounts give alſo, 76° 2′ 30″ for the longitude of Aurungabad.

There is yet another line of diſtance to Aurungabad, and that is from Nagpour; whoſe poſition is aſcertained with preciſion. Two accounts of the eſtimated diſtance between them, collected by Lieut. Ewart, are, 162, and 165 coſſes: the medium of which, 163½, at

* M. D'Anville reckons the ſame difference of latitude between the two places, but he has placed both of them too far north by 24 minutes; following I apprehend, the latitude of Burhanpour, given in the Ayin Acbaree.

42 coſſes

42 coffes to a degree, is 233 G. miles of horizontal diftance. This would place Aurungabad, admitting its latitude to be 19° 45′, in 75° 53′ 30″ or 9′ to the weft of the other accounts. The refult of the fhort diftances, are doubtlefs to be preferred to that of the long ones; and I infert this laft only to fhew the extremes of the different accounts.

Laftly, if the diftances from the 4 neareft points are taken; that is from Noopour 150 G. miles; Burhanpour 95; Nimderrah 64,7; and Bahbelgong 70,2: the medium of the interfections of thefe, will be in lat. 19° 44′, lon. 76°.

Although I have taken the latitude at 19° 45′, as the diftance from Burhanpour is fo nearly meridional: yet the interfections of the other diftances, point to its being in a lower latitude, by 4 or 5 minutes: in which cafe, its pofition would alfo be fomewhat more wefterly.

Upon the whole, I have placed Aurungabad in lat. 19° 45′, lon. 76° 2′ 30″; and by what has been faid, it cannot be much out of its true place: but as it is a point of great importance in the geography of this part of India, it required particular difcuffion; being the centre of feveral roads; and the bearing of that long line, between it and Hydrabad, Beder, Calberga, &c. depending on it.

Aurungabad is but a modern city; owing its rife from a fmall town, to the capital of the province of Dowlatabad, to Aurungzebe; from whom alfo, it had its name. After the Deccan became a province, of the Mogul empire, it was reckoned the provincial capital; and continued to be fo, after the Nizams became independant of Delhi; and until the encroachments of the Poonah Mahrattas, of late years, made it an uncomfortable refidence to the Nizam. When the Deccan was firft invaded by the Patan Emperors of Delhi, Deogire was the capital of the province of Dowlatabad, and was fituated near the fortrefs of the fame name; which is built on a mountain about 4 or 5 coffes to the N W of Aurungabad; and is deemed impregnable by the people of the country.

The

The Emperor Mahomed, in the 14th century, made an attempt to eſtabliſh the capital of his Empire, at Deogire; and to that end almoſt ruined Delhi, in order to drive the inhabitants to his new capital, about 750 miles from their ancient habitations. This ſcheme, however, did not ſucceed: and was if poſſible the more abſurd, as at that time, but a ſmall progreſs had been made towards the conqueſt of the Deccan.

The pagodas of Elora are in the neighbourhood of Dowlatabad, moſt of which are cut out of the natural rock. M. Thevenot, who particularly deſcribes them, ſays, that for two leagues together, nothing is to be ſeen but pagodas, in which there are ſome thouſands of figures. He does not, however, greatly commend the ſculpture of them: and, I apprehend, they are of early Hindoo origin. We muſt remember that Deogire, which ſtood in this neighbourhood, was the greateſt and richeſt principality in the Deccan; and that the fame of its riches, incited Alla to attack it, in 1293: and theſe elaborate monuments of ſuperſtition, were probably the offspring of that abundant wealth, under a government, purely Hindoo.

M. Buſſy's line includes within it, the poſitions of Hydrabad, Golconda and Beder. When the line is corrected as above, to Aurungabad, Hydrabad will be found in lat. 17° 24′; which I conceive to be too far to the northward, conſidering its reputed diſtance from Nagpour and Cuddapah. M. D'Anville too (in his Eclairciſſemens) ſays that the latitude of Hydrabad is 17° 12′. How he came by his information, I know not; but I believe it to be nearly right: and this is the parallel it is generally placed in. A third circumſtance tending to confirm this opinion, is, that the map of Col. Peach's march from Ellore to Warangole (in 1767) in which the diſtances were meaſured, and the angles of poſition taken by Major Gardner, places the latter only 37 G. miles from the poſition in which Hydrabad ſtands by M. Buſſy's line. It can hardly be deemed an impeachment of the general truth of a line

of

of 360 G. miles, meaſured after an army, that a poſition, in or near that line, ſhould be 10 or 12 miles out of the ſuppoſed line of direction. It is conformable to my idea of the diſtances of Nagpour, Cuddapah, and Warangole, that Hydrabad ſhould be in 17° 12′, rather than in 17° 24′; and I have accordingly followed M. D'Anville: giving the lines between it and Aurungabad on the one ſide, and Condapilly on the other, a new direction accordingly.

Although by proportioning M. Buſſy's march from Bezoara, Hydrabad is placed in 78° 51′ longitude; or only 114 G. miles from Bezoara, yet the different reports of the diſtance between theſe places, is much greater than the conſtruction allows. For 114 miles will produce only 87½ coſſes, according to the proportion of 46 to a degree (which is the reſult of the calculation made on the road between Aurungabad and Maſulipatam, page 4) whereas, one account from General Joſeph Smith, ſtates the number of coſſes at 98; and another from a native at 103. Again, Col. Upton reckoned 118½ coſſes between Hydrabad and Ellore, which the conſtruction allows to be only 138 G. miles; or 105¼ coſſes according to the ſame proportion of 46 to a degree. So that I have either miſtaken the longitude of Hydrabad, which is improbable, all circumſtances conſidered; or the coſs is even ſmaller than I have ſuppoſed. Or, the road leading through a hilly and woody country, is more crooked than ordinary *: and the journals remark its being very woody, and thinly inhabited, between Condapilly and Hydrabad. Until we have the latitude and longitude of Hydrabad, or ſome place very near it, we cannot be ſatisfied with its preſent poſition; for M. Buſſy's line is too long, to be exact, without the aids of latitude to check it. The reputed diſtance between it and Nagpour, 169 coſſes, agrees perfectly with its corrected parallel of 17° 12′.

* General Smith's proportion of coſſes to a degree, is 51½; Col. Upton's, 52½; and the map by the native 55.

Hydra-

Hydrabad or Bagnagur, is the prefent capital of the Nizams of the Deccan; who fince the difmemberment of their empire, have left Aurungabad, the ancient capital; which is not only in a corner of their dominions, but in that corner which lies near their hereditary enemy, the Poonah Mahrattas; and which is alfo the leaft defenfible. About 5 or 6 miles to the W N W of Hydrabad, and joined to it by a wall of communication, is the celebrated fortrefs of Golconda * occupying the fummit of a hill of a conical form, and deemed impregnable. When Aurungzebe conquered the kingdom of Golconda, in 1687, this fortrefs was taken poffeffion of by treachery.

The next *primary point* or *ftation*, and one of the moft important, as being the fartheft removed from any other given point, in the whole conftruction, is Nagpour; the capital of the eaftern divifion of the Mahratta empire, and nearly in the centre of India. This laft confideration, and the number of roads iffuing from it to the circumjacent cities, moft of which roads had their diftances given by computation only, made the determination of this point a grand *defideratum* in Indian geography. Mr. Haftings therefore, with that regard to ufeful fcience and improvements of every kind, which has ever diftinguifhed his character, directed a furvey to be made of the roads leading to it from the weftern frontier of Bahar; and alfo from the fide of Allahabad. This was executed in 1782 and 1783, by Lieut. Ewart, under the direction of Col. Call, the Surveyor General. The refult of this expedition was perfectly fatisfactory. He began his meafured line at Chittra or Chetra in Bahar, placed in 85° of longitude, and in lat. 24° 12′, in my map of Bengal and Bahar; and his difference of longitude from thence to Nagpour, in lat. 21° 8′ 30″, was 5° 16′ weft: by which Nagpour would be in 79° 44′. And from Nagpour back to Benares, in lon. 83° 13′, in the fame map, he made 3° 25′ 10″, difference of longitude, eaft;

* The termination, *conda*, or *kond*, fignifies fortrefs, and often occurs in the fouth part of India; as *cotta*, and *cote*, which have the fame fignification, do in the north. *Gur* is ufed in the fame fenfe occafionally in every part.

which

which placed Nagpour in lon. 79° 47′ 50″; or 3′ 50″ only, different from the other account; and this I ſuſpect to ariſe partly from the error of his needle. If we cloſe the account back again to Chittra, the place he ſet out from, he made only 4 minutes difference, in the diſtance out and home: and the road diſtance, was 600 B. miles from Chittra to Nagpour, only.

Taking the medium of the two accounts, the longitude of Nagpour will be 79° 45′ 55″, or 79° 46′. The obſervations for determining the longitude at this place, by Lieut. Ewart, do not accord with the above account, by a conſiderable number of minutes: therefore I have not inſerted them here, in expectation that they may be compared with correſponding ones, taken at places whoſe ſituations are already aſcertained.

As Mr. Ewart's route to Nagpour, was by way of Burwah, Surgoojah, and Ruttunpour: and from thence to Banares, by Gurry, the capital of Mundella, he aſcertained the poſitions of thoſe places, ſatisfactorily; and by that means added to the number of primary ſtations. The latitudes were conſtantly taken, in order to correct the route, in detail. Nor did his work end here: for his enquiries at Nagpour, furniſh a number of eſtimated or computed routes from that capital to Burhanpour, Ellichpour, Aurungabad, Neermul, Mahur, Chanda, &c. that is, in every direction, except the S E; whence we may infer the ſtate of that tract to be wild, uncultivated, and little frequented. And it appears by his intelligence, that the way to Cattack is unſafe in any direction farther ſouth than Sumbulpour.

Nagpour, the capital of Moodajee Boonſlah, the chief of the eaſtern Mahratta ſtate, is a city of modern date; and though very extenſive and populous, is meanly built, and is open and defenceleſs, ſave only by a ſmall citadel, and that of little ſtrength. The city is ſaid, by Golam Mohamed, to be twice as large as Patna; but Mr. Ewart's account makes it but of a moderate ſize. Moodajee's principal fortreſs, the depoſitory of his treaſures and valuables, is

6 Gyalgur,

Gyalgur, called alſo Gawile, ſituated on a ſteep mountain, about 103 G. miles to the W by N of Nagpour. Each of the native Princes in India, has a depoſitary of this kind, and commonly at a diſtance from his place of reſidence: the unſettled ſtate of the country making it neceſſary. The country round Nagpour is fertile and well cultivated, interſperſed with hills of a moderate height: but the general appearance of the country at large, and particularly between Nagpour and Bahar, is that of a foreſt, thinly ſet with villages and towns. It is the weſtern and northern parts of Moodajee's country, that produce the largeſt part of his revenue; together with the *Chout*, or proportion of the revenues of Ellichpour, &c. held by the Nizam.

Ruttunpour is a city lying in the road from Bahar to Nagpour, and is the capital, and reſidence of Bambajee, who holds the government of the eaſtern part of the Nagpour territories, under his brother Moodagee. This place, alſo, has its poſition fixed very accurately by Mr. Ewart, in lat. 22° 16′, lon. 82° 36′. This is a *primary ſtation* of great uſe, as it regulates all the poſitions between Cattack and Gurry-Mundella; between Bahar and Nagpour. As its corrected poſition differs only 3 miles from the former eſtimated one, collected from Col. Camac's obſervations and enquiries; it ſerves as an additional proof, how much may be effected by a careful examination and regiſter of the eſtimated diſtances on the roads: and this mode of improving the geography of India, may be adopted, when all others fail. An intelligent perſon ſhould be employed in collecting ſuch ſort of information, as Mr. Ewart collected at Nagpour; from the principal cities in the leaſt known parts of Hindooſtan; at the ſame time determining the poſition of ſuch cities, by cœleſtial obſervations; by which means a number of fixed points would be eſtabliſhed, from whence the computed diſtances might at once be laid off, and corrected. More could be done in this way in a ſhort time, towards completing the geography, than moſt people

people can eaſily conceive : and, I flatter myſelf, it will be ſoon adopted.

Agimere, Ajmere, or Azmere, is the *primary point* on which the geography of the N W part of the tract in queſtion, reſts ; and is determined by the eſtimated diſtances from Agra and Burhanpour. An itinerary kept by John Steel, reckons 119 coſſes between Agra and Agimere : and Tavernier, who left Agimere to the north, in his way from Amedabad, reckoned 100 coſſes from Banderſandry to Agra ; and Banderſandry being 14 from Agimere, by Steel's account, we may take 114 for the whole diſtance, from Agra to Agimere. A map of Malwa and its neighbourhood, communicated by Mr. Benſley, places Agimere 180 G. miles to the weſt of Gwalior ; and another map communicated by Mr. Haſtings, gives the ſame diſtance. By the conſtruction, founded on Mr. Steel's 119 coſſes from Agra, and which produce $172\frac{1}{2}$ G. miles, Agimere is found to be $10\frac{1}{2}$ miles ſhort of the diſtance from Gwalior, in the above maps.

The parallel of Agimere is determined by Sir Thomas Roe's computation of the diſtance from Burhanpour to Agimere, through Mundu and Cheitore ; and that is 222 coſſes, or 318 G. miles : and the interſection of the two diſtances from Burhanpour and Agra, happens in lat. 26° 35′, lon. 75° 20′. This is the poſition of Agimere in the map : no great accuracy, however, with reſpect to its parallel, can be expected, where the authority is nothing more than a ſingle line of diſtance, and that a very long one. The Ayin Acbaree is totally ſilent concerning its latitude and longitude. Col. Call, in a map of his, communicated by Mr. Haſtings, places it in the parallel I have aſſigned to it ; and allows it to be diſtant from Burhanpour, 307 G. miles, and $192\frac{1}{2}$ from Agra ; on what authority, I know not. Thevenot gives its latitude at $26\frac{1}{2}$°.

Agimere was the capital of the ſoubah of the ſame name, in Acbar's diviſion of the empire, and is probably the *Gagaſmira* of Ptolemy. It is built at the foot of a very high mountain ; on the

top of which, is a fortreſs of very great ſtrength. It is about 230 miles by the road, from Agra, and yet the famous Emperor Acbar, made a pilgrimage on foot, to the tomb of a ſaint, there; to implore the divine bleſſing on his family, which at that time conſiſted only of daughters; but after this pilgrimage, he had three ſons added to it. Jehanguire, his ſon and ſucceſſor, occaſionally kept his Court here; and this occaſioned the viſits of Sir Thomas Roe to this place; as well as to Cheitore, and Mundu, which lay in his way to it, from Surat.

Ougein can hardly be regarded as a primary ſtation, as it effects the poſition of one place only; that is, Mundu. Col. Camac's tables place it 50 coſſes from Bopaltol, a point in Smith's and Goddard's routes; and 89 from Pawangur, which is 14 coſſes to the E N E of Brodera, in Guzerat. A Perſian book of routes, obligingly communicated by Capt. Kirkpatrick, gives 108 coſſes between Ougein and Brodera; or 5 more than Camac's account. This, together with ſome other routes from the Perſian book, was tranſlated for me, by Mr. David Anderſon, whoſe ſervices on the memorable occaſion of negociating the Mahratta peace, in 1782 and 1783, claim the united acknowledgments of Great Britain, and Hindooſtan. If we take the diſtance on the map, between Bopal and Brodera, through Ougein (which occaſions a conſiderable bend in the line) it will be found to be 251 G. miles: and the computation of coſſes being 158, the proportion will be about 38 to a degree; which is nearly the ſcale adopted for Malwa, in page 5. Having laid off 50 coſſes for the diſtance of Ougein from Bopal, weſtward, by this ſcale; the parallel of Ougein is then obtained by its reputed diſtance from Mundu: concerning whoſe poſition, we have only the following information:

Sir Thomas Roe paſſed it in his way from Burhanpour to Cheitore and Agimere, in 1615; and reckoned it 66 coſſes from the former, or 94½ G. miles. For the direction of this line of diſtance, which appears to be about N by W, we have nothing more than

the general bearing and diſtance of Mundu from Ougein to guide us: the general longitude of Ougein, which alone concerns this part of the queſtion, being obtained by means of the lines of diſtance from Bopal and Brodera. D'Anville gives the bearing line of Mundu from Ougein, at S S W, diſtance 31½ G. miles; and a MS. map of Col. Muir's has it S ½ W 36. I have made the bearing S by W, and the diſtance 36 miles; whence the reſult will be, that Mundu is in lat. 22° 50′, lon. 75° 47′. Col. Muir's map places it in 23° 18′, and M. D'Anville's in 23° 10′; but this is owing to his taking Burhanpour at too high a latitude, by 30 minutes.

The 50 coſſes, or 86 G. miles, being laid off from Bopal, weſtward; and 36 miles northward from Mundu, give the poſition of Ougein in lat. 23° 26′, lon. 75° 56′. The Ayin Acbaree takes no notice either of the latitudes or longitudes of Ougein or Mundu; although ſuch ancient and famous cities. Col. Muir's map has the latitude of Ougein at 23° 56′, or 30′ to the northward of the aſſumed poſition of it, in the map. And D'Anville places it in 23° 39′.

The cities of Ougein and Mundu are both of great antiquity. The former appears evidently both as to name and poſition, in Ptolemy, under the name of *Ozene*. When the Ayin Acbaree was written, about 200 years ago, Mundu, (or Mundoo) was the capital of Malwa, and is deſcribed as a prodigious city, of 12 coſſes, or 22 miles in circuit; and containing many monuments of ancient magnificence: but when it was viſited by Sir Thomas Roe, in 1615, it was then fallen much to decay. It occupied the top of a very large and high mountain: few cities were ever placed in a bolder ſituation.

Ougein is the preſent capital of Madajee Sindia; who, with Tuckajee Holkar, poſſeſſes the principal part of Malwa. Holkar's capital is at Indore or Endore, a modern city, which is ſaid to lie about 15 coſſes from Ougein, weſtwards. This is a part of Hin-

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dooſtan, concerning which, we are but ſlightly informed; and Sindia wiſhed to keep us in ignorance: for it is ſaid, he expreſſed a diſapprobation of the brigade from Guzerat, taking its route through Ougein, in its way to the Bengal provinces: ſo that the detachment returned, nearly by the ſame road as it went, as far as Sirong.

Having now diſcuſſed the manner of eſtabliſhing the *primary ſtations*, or thoſe principal points, on which the general conſtruction of the geography of the tract under conſideration, depends; I ſhall proceed to give the detail of the manner, in which the intermediate ſpaces were filled up: but ſo great a variety of matter offers, that I hardly know where to begin; nor is it a point of much conſequence: however, to preſerve as much regularity as the ſubject is capable of, I ſhall begin on the weſtern ſide, near Bombay; then go round by the north and eaſt; and finiſh in the ſouth.

The road from Bombay to Poonah is taken from a MS. map, made during the unfortunate campaign of 1778-9: collated with Mr. Smith's, and General Goddard's. And all the particulars on the weſt of the Gauts, between Bombay and Surat, are alſo taken from General Goddard's map.

The road from Poonah to Nuſſergur (or Nuſſeratpour) and round to Soangur, was deſcribed by Meſſieurs Farmer and Stewart, during the time they remained as hoſtages in the Mahratta camp; and the particulars were obligingly communicated to me by Mr. Farmer. His map aſcertains the ſituations of Caſſerbarry and Coondabarry Gauts; and, in particular, that of the city of Amednagur, once the capital of the ſoubah of the ſame name; but now better known by that of Dowlatabad. This city, which was the reſidence of the Emperor Aurengzebe, during his conqueſt of the Deccan and Carnatic, has generally been placed 50 miles to the ſouth-eaſt of its true poſition.

The road from Nimderrah Gaut to Aurungabad, and back to Bahbelgong, and thence by Chandor and Saler-Mouler, to Noopour;

pour; is from M. Anquetil du Perron. Chandor occurs in Mr. Smith's route; as well as Unkei-Tenki, which we meet with in Tavernier, and helps us to join the routes together.

The ſouth-eaſt part of Guzerat is from a ſurvey taken by order of the Bombay Government, collated with General Goddard's marches; and eſtabliſhes among other points, that of Brodera, a principal fortreſs and town, in the north-eaſt part of the tract lying between the rivers Tapty and Myhie: through which the great road leads from Surat to Ougein. Brodera lies in lat. 22° 15′ 30″, lon. 73° 11′. The Ayin Acbaree reports that there was an avenue of mango trees, extending the whole way from Brodera to the city of Puttan; which may be 130 miles. The road to Amedabad, is entirely from General Goddard: and the country round about it, as well as the peninſula of Guzerat, owe their preſent appearance, to a MS. map of Governor Hornby's, communicated by Mr. Dalrymple. This map contains much new matter: and the Ayin Acbaree aſſiſts in diſcriminating the valuable parts of it. In it is found the ſite of Mahmoodabad; in its turn, the capital of Guzerat, and founded by Sultan Mahmood in the 11th century. The Ayin Acbaree deſcribes the walls of it, as including a vaſt extent of ground; and ſpeaks of it rather as an exiſting city, than as a place in ruins. This was in the latter part of the 16th century. Junagur or Chunagur, a city and fortreſs in the heart of the peninſula, and a ſubject of Feriſhta's hiſtory, is likewiſe found in this map: but Nehlwarrah, one of the ancient capitals of Guzerat, and alſo the ſubject of the ſame hiſtory, I cannot trace out by name, either in this map, or in the Ayin Acbaree. I find however, in the latter, ſome notices reſpecting a large city in ruins; and whoſe ſituation agrees with my ideas of that of Nehlwarah. It is in the peninſula, at the foot of the mountains of Sironj; and the port of Gogo was dependent on it: whence I conclude by the lights afforded by hiſtory, and by its latitude, given by Naſir-Uddin and Ulegbeg, at 22°, that it lies about 30 road miles N W of Gogo.

Many

Many other positions are pointed out, or illustrated, by this map; which, I am informed, is the production of a native of Guzerat. After this account of its author, one might have rested satisfied with its containing a great variety of particulars, although not arranged in geographical order: but it is remarkable, that it gives the form of Guzerat with more accuracy, than most of the European maps can boast.

It does not however, clear up the ambiguity that has long existed, concerning the lower part of the course of the Puddar river: nor am I yet informed whether that river discharges itself into the head of the gulf of Cutch, by one channel; or whether it forms several channels, and discharges itself through the many openings that present themselves, between the head of the gulf of Cutch, and the Indus. One thing only, we are certain of by means of this map; and that is, that one large river (or branch of a river) falls into the head of the gulf of Cutch; and that it appears to be the same river that has its source in the S W part of Agimere, and which is named by Europeans, the Puddar. The river that opens into the head of the gulf of Cutch, is named in the MS. map, *Butlass*; taking its course by Sirowy, Palhanpour, and Radunpour (or Radimpour). The Ayin Acbaree does not enumerate among the rivers of Guzerat, or Agimere, either the Puddar, or Butlass. It is more extraordinary that the Puddar should not be taken notice of, as the Ayin Acbaree describes an extensive tract of low fenny land, on the west of Amedabad, and which was periodically overflowed by the mouth of a river; when that very river is what we name the Puddar. It is certain that the name occurs only in D'Anville. Tavernier takes no notice of it, in his route from Amedabad to Agra, although he must have crossed it. Possibly the word *Puddar*, may be no more than an appellative; or may be the same as *buddar*, or *budda*, in Soane-budda and Ner-budda: and the proper name of the river, Butlass, might have been omitted.

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The peninſula of Guzerat is about 200 miles in length, and 140 wide, formed by the Arabian ſea (called by the Aſiatics, the ſea of OMMAN) and the gulfs of Cambay and Cutch; both of which penetrate far within the continent, as the dimenſions of the peninſula ſhew. By the numerous ſubdiviſions of this tract, and more by the ſum of its revenue, in the Ayin Acbaree, we are led to conſider it as of very great importance, in the opinions of the Moguls. Surat too, that great emporium, ſituated in its vicinity, had its ſhare in raiſing the value of the natural products of it, among which, cotton is the ſtaple article. Being a frontier province, as it reſpects the acceſs by ſea, Guzerat contains a greater mixture of races, and a greater variety of religions, than any other province. The Ayin Acbaree ſays, "From the liberality of his Majeſty's (Acbar's) "diſpoſition, every ſect exerciſes its particular mode of worſhip, "without moleſtation." What a happy change ſince Mahmood, in the 11th century; whoſe principal delight was the deſtruction of Hindoo temples! The famous pagoda of Sumnaut, which was deſtroyed by Mahmood, ſtood within the peninſula, of which we have been ſpeaking; and its particular ſite is pointed out by circumſtances, in the Ayin Acbaree, and Feriſhta. For the former ſays, "Puttan on the ſea ſhore, is alſo called Puttan Sumnaut." And the latter, "it was ſituated upon the ſhore of the ocean, and "is at this time to be ſeen in the diſtricts of the harbour of Deo "(Diu) under the dominion of the idolaters of Europe." This plainly refers to Diu, in the hands of the Portugueſe: and the town of Puttan is about 30 miles on the N W of Diu; and on the ſea ſhore.

Although the gulfs of Cambay and Cutch penetrate ſo deeply within the land, yet ſo far from rendering the ſea ſmoother, or the navigation ſafer, they occaſion ſuch high and rapid tides, and are ſo thickly ſown with ſand banks, that few places are more dangerous. The *Bore*, which means the flood tide ruſhing in ſuddenly, and forming a body of water, elevated many feet above the common

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mon ſurface of the ſea; and of courſe levelling every obſtacle that oppoſes it; rages here with great violence: covering in an inſtant the ſand banks, which before appeared dry and firm. I have accounted for the terror with which Alexander's followers were ſtruck, at the mouth of the Indus, from this dreadful phenomenon. (See the Introduction).

Capt. Joſeph Price, had the misfortune to be carried up to the head of the gulf of Cutch, by pirates, who captured his ſhip, after a moſt gallant and obſtinate defence, of two days; but was afterwards treated with great reſpect and tenderneſs, and permitted to depart by land, for Bombay. He accordingly traverſed the Iſthmus, to Gogo; and reports that the country in that track, is generally flat; having only a few eminences, and thoſe fortified. The ſoil is dry and ſandy, as is common to Guzerat in general; for, as the author of the Ayin Acbaree ſays, the rain there, does not occaſion mud. This may be inferred from the nick-name of *Gherdabad*, or duſt-town, beſtowed on Amedabad, by Shah Jehan.

The road from Amedabad to Agimere, by Meerta, is chiefly from a map conſtructed by Col. Call, and communicated by Mr. Haſtings. To this I have added Tavernier's particulars of the road, as he travelled this way from Amedabad to Agra. I know not from whence Col. Call had his particulars, but they appear to be perfectly new. Tavernier's diſtance is enormous, according to the ſcale of the coſs; but it is to be conſidered, that the road is very circuitous, and no leſs mountainous; ſo that no rule can well be applied, for reducing the road diſtance, to a ſtraight line.

The poſitions of Agimere, Jaepour, and Ougein, have been already diſcuſſed, as well as the places ſituated in the line of Mr. Smith's route. The ſpace included between theſe points, and which is chiefly ſituated in the ſoubah of Agimere, has undergone a very conſiderable improvement in its geography, ſince the publication of my laſt map; by the contributions of Mr. Haſtings, Mr. Benſley, and Col. Popham. I know not who the authors of the

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ſeveral maps in queſtion were; they have, however, my acknowledgments for the aſſiſtance I have received from them: and I grieve to reflect, that ſome of the perſonages who furniſhed the moſt intereſting matter towards the improvement of this work, have not lived to be witneſſes of the ſucceſs of their labours. The tract in queſtion, includes among others, the provinces of Cheitore and Oudipour, ſubject to the Rana or chief Prince among the Rajpoots; and the antiquity of whoſe houſe may be gathered, by the name *Rhannæ* appearing in Ptolemy, nearly in its proper poſition, as a province. The province of Agimere in general has ever been the country of Rajpoots; that is, the warrior tribe among the Hindoos, and which are noticed in Arrian, and Diodorus: and Cheitore or Oudipour (which I conſider as ſynonimous) is, I believe, reckoned the firſt among the Rajpoot ſtates. The whole conſiſts generally of high mountains divided by narrow vallies; or of plains, environed by mountains, acceſſible only by narrow paſſes and defiles: in effect, one of the ſtrongeſt countries in the world; yet having a ſufficient extent of arable land: of dimenſions equal to the ſupport of a numerous population; and bleſſed with a mild climate; being between the 24th and 28th degrees of latitude: in ſhort, a country likely to remain for ever in the hands of its preſent poſſeſſors; and to prove the aſylum of the Hindoo religion and cuſtoms. Notwithſtanding the attacks that have been made on it, by the Gaznavide, Pattan, and Mogul Emperors, it has never been more than nominally reduced. Some of their fortreſſes, with which the country abounds, were indeed taken; but THE SPIRITS OF INDEPENDENT NATIONS, DO NOT RESIDE IN FORTRESSES; nor are they to be conquered with them. Accordingly, every war made on theſe people, even by Aurungzebe, ended in a compromiſe, or defeat, on the ſide of the aſſailants.

Cheitore was the capital of the Rana in the days of his greatneſs. It was a fortreſs and city of great extent, ſituated on a mountain; but has been in ruins ſince the time of Aurungzebe in 1681: and

had once before experienced a like fate from the hands of Acbar, in 1567. The poſition of this place is inferred from the account of Sir Thomas Roe, who made it 105 coſſes from Mundu, and 51 from Agimere. From this I have been led to place it in lat. 25° 21′, lon. 74° 56′. The different MS. maps, give its poſition more to the weſt; and indeed, one of them, ſo far as to throw it near the great road from Amedabad to Meerta. The cauſe of this, is a miſtake in the difference of longitude between Agra and Guzerat, which has been reckoned too much in theſe MSS. Cheitore, placed as above, is only about 181 G. miles on the weſt of Narwah: Mr. Haſtings's MS. map, gives this diſtance at 196; Col. Popham's at 195; Col. Muir's at 193; and a map of Malwa 231. All but the laſt, aſſign it the ſame parallel as Narwah: while my conſtruction places it 19 minutes more ſouthwardly: the map of Malwa, alone places it 18′ ſouth of Narwah. Mr. Haſtings's copy agrees with the conſtruction, in making it bear about S S W from Agimere; but ſhortens the diſtance about 6 coſſes.

Rantampour, a very celebrated fortreſs in the Indian hiſtories, is ſituated in the eaſtern quarter of Agimere, and has its poſition from the ſame MSS.: and in the S E quarter of the ſame ſoubah, many other noted fortreſſes and reſidencies of Rajahs, are extracted from the ſame MSS.; aſſiſted by Col. Camac's tables of routes: ſuch as Kotta, Boondi, Gandhar, Thora, Suiſopour, Sandri, Mandelgur, &c. And in Marwar, or the north diviſion of Agimere, Nagore, Bicaneer, Catchwana, Didwanah, Samber, &c. &c. The upper part of the courſes of the Chumbul, Sinde, and Sepra rivers, appear now, for the firſt time, in ſome ſort of detail; though it muſt be long, e'er the geography of parts ſo remote from our eſtabliſhments and influence, can be in any degree correct: and the reader will pardon his being reminded, that the geography we are treating of, includes an extent equal to one half of Europe.

The Ayin Acbaree has furniſhed ſome new ideas reſpecting the diviſion of the ſoubah of Agimere. It conſiſted at that time of

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three grand divisions, Marwar, Meywar, and Hadowty (or Nagore); and these contained 7 circars or subdivisions, Agimere, Chietore, Rantampour, Joudypour, Sirowy, Nagore, and Beykaneer (or Bicaneer). Marwar, as including the circar and fortress of Agimere, has grown almost synonimous with Agimere, in common acceptation. The extent of this province as given by the same book, is 168 cosses, or about 320 B. miles, from east to west; and 150 cosses, or 285 B. miles, from N to S: and its extent on the map, justifies this account. Such is the province of the Rajpoots: the grain cultivated there is chiefly of the dry kind; and from the indulgence granted to this tribe throughout India, namely, that of feeding on goat's flesh, we may infer, that the custom originated in this mountainous country. The taxes amounted (in the time of Acbar) to no more than a seventh, or eighth, of the produce of the harvest.

We come next to the Gohud and Narwah provinces, between the Chumbul and Sinde rivers. Much of this tract was described by Mr. Cameron, in a map communicated by the late Col. Camac: but even a province equal to one of the largest English counties, is lost in such a map, as the one under consideration. Beyond this, on the east and south-east, to the Betwah river, is filled up chiefly with Col. Camac's information. Between that river, and the Nerbudda, the Persian book of routes (see page 146) furnishes the road between Callinger and Bilsah, and becomes interesting by its leading through Sagur (the *Sageda*, of Ptolemy) a capital fortress and town, situated on a branch of the Cane river, about 55 G. miles to the eastward of Bilsah. This route was also translated by Mr. Anderson. It gives only 78 cosses between Pannah (or Purnah, the famous diamond mine of Bundelcund, and supposed to be the *Panassa* of Ptolemy) which, I should apprehend, was a mistake; as the distance on a straight line, is 165 G. miles. Sagur, however, being stated at 26 cosses from Bilsah, a known point, does not allow of being far misplaced, by an error in the scale.

Bilſah is placed by a route of Col. Camac's, leading from Sirong to Bopal; and being confined by theſe points on two ſides, and by the routes of Goddard and Smith, on the others; it cannot be far out of its place. Bilſah, which is almoſt in the heart of India, affords tobacco of the moſt delicate kind, throughout that whole region; and which is diſtributed accordingly *.

Chanderee, and other places along the courſe of the Betwah, are either from Col. Camac's routes, or Col. Muir's map. Chanderee is a very ancient city, and within the province of Malwa. The Ayin Acbaree ſays, " there are 14,000 ſtone houſes in it." It is now, like moſt of the ancient cities of Hindooſtan, fallen into decay; but is ſtill the reſidence of a principal Rajah. The routes in the central parts of Malwa, are from Col. Muir's map: Hindia, is from Tavernier, ſuppoſing it was meant by *Andi*. It is aſtoniſhing how he could ſo far miſtake the couſe of the Nerbudda at that city, as to ſuppoſe it ran into the Ganges.

A Hindoo map of *Bundela* or Bundelcund, including generally the tract between the Betwah and Soane rivers, and from the Ganges to the Nerbudda; was obligingly communicated by Mr. Boughton Rouſe, who alſo tranſlated the names in it, from the Perſian. This map points out ſeveral places that I had not heard of before, and aſſiſts in fixing many others of which I had been partially informed.

The country between Mirzapour and the heads of the Soane and Nerbudda, was explored by Major William Bruce, who ſo eminently diſtinguiſhed himſelf at the eſcalade of Gwalior in 1780 †. During

* A difference of opinion ſeems to have ariſen among the learned, whether tobacco came originally from Aſia or America. It was poſſibly indigenous to both continents. It is univerſally diſſeminated over Hindooſtan, and China: and appears to have been in uſe ſo long, in the former, that it is not regarded as a new plant. It is there named *Tamba-patra*; that is the copper, or copper coloured, leaf.

† The circumſtances attending this capture are ſo very curious, that I cannot help inſerting them here, though confeſſedly out of place. They are extracted from the printed account of GWALIOR, which accompanies a beautiful engraved view of that fortreſs, publiſhed in 1784.

" The fortreſs of Gwalior ſtands on a vaſt rock of about 4 miles in length, but narrow, and of unequal breadth; and nearly flat at the top. The ſides are ſo ſteep as to appear almoſt perpen-

During his expedition, he verified a fact which had been long doubted, though strenuously insisted on by the natives; (viz.) that the Soane and Nerbudda rivers had their common source from a pond, or lake, on the southern confines of the Allahabad province. These rivers do literally flow from the same lake; making, con-

perpendicular in every part; for where it was not naturally so, it has been scarped away: and the height from the plain below, is from 200 to 300 feet. The rampart conforms to the edge of the precipice all round; and the only entrance to it, is by steps running up the side of the rock, defended on the side next the country by a wall and bastions, and farther guarded by 7 stone gateways at certain distances from each other. The area within is full of noble buildings, reservoirs of water, wells, and cultivated land; so that it is really a little district in itself. At the N. W. foot of the mountain, is the town, pretty large, and well built; the houses all of stone. To have besieged this place, would have been vain; for nothing but a surprize or blockade could have carried it.

A tribe of banditti from the district of Gohud had been accustomed to rob about this town, and once in the dead of night had climbed up the rock, and got into the fort. This intelligence they had communicated to the Rana, who often thought of availing himself of it, but was fearful of undertaking an enterprize of such moment with his own troops.

At length, he informed Colonel Popham of it, who sent a party of the robbers to conduct some of his own spies to the spot. They accordingly climbed up in the night, and found that the guards generally went to sleep after their rounds. Popham now ordered ladders to be made, but with so much secresy, that until the night of the surprize, a few Officers only knew it. On the 3d of August, 1780, in the evening, a party was ordered to be in readiness to march under the command of Major Bruce; and Popham put himself at the head of 2 battalions which were immediately to follow the storming party. To prevent as much as possible, any noise in approaching or ascending the rock, a kind of shoes of woollen cloth were made for the sepoys, and stuffed with cotton. At 11 o'clock, the whole detachment marched from the camp at Reypour, 8 miles from Gwalior, through unfrequented paths, and reached it a little before day-break. Just as Bruce arrived at the foot of the rock, he saw the lights which accompanied the rounds, moving along the rampart, and heard the centinels cough (the mode of signifying that *All is well*, in an Indian camp, or garrison) which might have damped the spirit of many men, but served only to inspire him with more confidence; as the moment for action, that is, the interval between the passing of the rounds, was now ascertained. Accordingly, when the lights were gone, the wooden ladders were placed against the rock, and one of the robbers first mounted, and returned with an account that the guard was retired to sleep. Lieutenant Cameron, the engineer, next mounted, and tied a rope ladder to the battlements of the wall; this kind of ladder being the only one adapted to the purpose of scaling the wall in a body (the wooden ones only serving to ascend from crag to crag of the rock, and to assist in fixing the rope ladder.) When all was ready, Major Bruce, with 20 sepoy grenadiers, ascended without being discovered, and squatted down under the parapet; but before a reinforcement arrived, three of the party had so little recollection as to fire on some of the garrison who happened to be lying asleep near them. This had nearly ruined the whole plan: the garrison were, of course alarmed, and ran in great numbers towards the place; but ignorant of the strength of the assailants (as the men fired on had been killed outright) they suffered themselves to be stopped by the warm fire kept up by the small party of grenadiers, until Colonel Popham himself with a considerable reinforcement came to their aid. The garrison then retreated to the inner buildings, and discharged a few rockets, but soon afterwards retreated precipitately through the gate; while the principal Officers, thus deserted, assembled together in one house, and hung out a white flag. Popham sent an Officer to give them assurances of quarter and protection; and thus, in the space of two hours, this important and astonishing fortress was completely in our possession. We had only 20 men wounded, and none killed. On the side of the enemy, Bapogee, the Mahratta governor was killed, and most of the principal Officers were wounded."

jointly

jointly with the Ganges, an iſland of the ſouthern part of Hindooſtan: and flowing in oppoſite directions 1500 miles. The courſe of the Nerbudda river is aſcertained, only in certain points where it happens to be croſſed by any of the great roads here deſcribed: excepting only in the neighbourhood of Broach. All the intermediate parts are drawn from report. It is repreſented to be as wide at Huſſingabad Gaut, as the Jumna is at Calpy: but fordable in moſt places, during the dry ſeaſon.

We learn from Mr. Ewart that the Soane is named Soane-budda, by the people who live near the upper part of its courſe; as its ſiſter river is named Ner-budda. The upper part of the courſe of the Soane is drawn in the ſame manner as the Nerbudda is deſcribed to be; and the fortreſs of Bandoo-gur, near it, is from the information of Mr. Ewart.

The *data* for the poſitions of Nagpour and Ruttunpour, are already given in page 142 and 144, in the diſcuſſion of the primary ſtations. Many roads lead from each of theſe places; but two only were meaſured: one from Chittra in Bahar, through Ruttunpour, to Nagpour; the other from Nagpour, through Gurrah, to Rewah and Mirzapour, on the Ganges. The firſt, by determining ſeveral points, ſuch as Surgoojah, Dongong, Kyragur, &c. enabled me to correct ſome of Col. Camac's eſtimated routes; and the latter, beſides giving the poſition of Gurrah, the capital of Gurry-Mundella; aſſiſted in ſettling Mundella, and Deogur. The eſtimated routes from Nagpour, were to Ellichpour, Burhanpour, Narnalla, Gawile (or Gyalgur) Aurungabad, Jaffierabad, Mahur, Notchengong, Neermull, Chanda, and Manickdurg; all collected by Mr. Ewart. All theſe proved very ſatisfactory; as they correſponded with the diſtances of the ſeveral intervals: and Nagpour being determined with the preciſion requiſite for a general map, there is little doubt but that all the places between Bengal and Bombay, are placed within a few miles of their reſpective poſitions: that is, ad-

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mitting the longitude of Bombay to be right, in reſpect of Calcutta.

Beſides the routes collected by Mr. Ewart, Mr. Watherſtone obligingly communicated his route from Huſſingabad Gaut, on the Nerbudda, to Nagpour. He was ſent thither on buſineſs of the higheſt political importance, by General Goddard; whoſe army was then encamped on the banks of the Nerbudda, in the courſe of its celebrated march acroſs the continent *. His journey pointed out, among other particulars, the ſource of the Tapty (or Surat river) whoſe ſpring is more remote than we had an idea of. It riſes at Maltoy, a town ſituated 42 coſſes to the N W of Nagpour: ſo that its couſe, is full two thirds of the length of that of the Nerbudda. The diſtance between Huſſingabad and Nagpour, is 100 coſſes.

Ellichpour is a fine city, and was anciently the chief city of Berar *proper*; by which I mean to diſtinguiſh the province known in the Ayin Acbaree by that name: for our modern acceptation of Berar, includes the whole country between Dowlalabad and Oriſſa; the eaſtern part of which, was neither reduced by Acbar, nor even known, in particulars, to the author of the Ayin Acbaree. At preſent, Ellichpour is the capital of a large province or diſtrict, ſubject to the Nizam; but paying a chout, or nominal fourth part of its revenues, to Nagpour.

Deogur, or Deogire †, was anciently a capital city, and the reſidence of the Rajah of Goondwaneh; or, as he is called in the Ayin

* In juſtice to General Goddard's memory, I think it incumbent on me to obſerve that the author of the Hiſtory of Hyder Ally (publiſhed in 1784) though ſeemingly inclined to compliment him, has depreciated the merits of the undertaking, by over-rating the numbers and quality of General Goddard's troops. M. D. L. T. ſtates the ſtrength of the army at 8000; of which, ſays he, 1200 were EUROPEANS. The truth is, that the detachment conſiſted of 103 European commiſſioned officers, and 6624 native troops of all denominations; and without a ſingle corps of Europeans. In the *return* from whence this was copied, the ſervants and followers of this little army, amount to no leſs a number, than 19,779: beſides the *bazar* or market people, not included in the return: and theſe are eſtimated at 12,000 more: in all, more than 4 followers to each fighting man.

† This muſt not be confounded with a city of the ſame name, which ſtood near the ſite of Dowlatabad.

Acbaree

Acbaree, the Goond Rajah; the Nerbudda being then the ſouthern limit of Hindooſtan. This province appears to be one of the moſt elevated in Hindooſtan, ſeeing that the rivers Tapty, Bain, and Nerbudda, deſcend from it. Malwa, is unequivocally the higheſt; for there, the rivers deſcend in every direction.

Golam Mohamed's routes, being added to thoſe collected by Mr. Ewart, contribute much towards the improvement of the map, in the interval between the meaſured lines by Mr. Ewart: and before we were favoured with that gentleman's moſt valuable materials (which entirely ſuperſede the former, as far as they go) Golam Mohamed's contributed largely towards the geography of the country round Nagpour *. Theſe we owed to the late Col. Camac, who to his praiſe, employed a part of his leiſure time, during his command on the weſtern frontier of Bahar, in enquiries concerning the ſtate of politics, government, geography, and nature of the countries included in the abovementioned tract: the geography of which, had till then, been very little known to us.

Sumbulpour or Semilpour, is determined by its reputed diſtance from Ruttunpour, and from 4 different points in the Bengal ſurvey; from routes collected by Col. Camac. Unluckily, I had placed Sumbulpour in the map, as it now ſtands, before I had ſeen Mr. Ewart's papers; by which it appears to be 10 or 11 miles to the ſouth-weſt of its true poſition; being in 21° 25′ lat., and 83° 40′ lon.; when it ought to be in 21° 34′ 30″, and 83° 46′ 30″. Had this new poſition been eſtabliſhed on the ſame principle as Nagpour and Ruttunpour; that is, mathematically; I ſhould not have ſcrupled to eraſe a large portion of the map, to gain ſo deſirable an advantage: but as it yet reſts on computed diſtances, I am content to point out the error in this manner.

* The number of eſtimated coſſes between Burwah and Nagpour, was 196, and from thence to Aurungabad, 163½; total 359½. And the diſtance on the map is 517½ G. miles; or at the rate of 41,7 coſſes to a degree: agreeing with the ſcale of coſſes, within three-tenths of a coſs, in a degree.

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The diſtance of Sumbulpour from Ruttunpour, which is hardly affected by the new matter, is by one account 53 coſſes; and by another 56: the medium, $54\frac{1}{2}$ coſſes, or 78 G. miles, is the diſtance adopted.

Then, Sumbulpour is from	Doeſah in Bahar	-	91 coſſes
———————	Nowagur in Bahar	-	59
———————	Raidy in Bahar	-	67
———————	Beurah in Bahar	-	41

All theſe places being nearly in one line of direction from Sumbulpour, admit of a medium being ſtruck between them: and this medium appears to be $66\frac{1}{2}$ from Raidy, or 95 G. miles. The interſection of theſe lines of diſtances, from Ruttunpour and Raidy, is nearly at right angles; and they meet as is ſaid above, in lat. $21^\circ\ 34'\ 30''$, lon. $83^\circ\ 46'\ 30''$. This poſition falls out 142 G. miles from Cattack; and Mr. Motte, who traced this road, together with the courſe of the Mahanada in 1766, made the diſtance 129: he alſo reckoned $51'$ difference of latitude, and it appears to be $64'\frac{1}{2}$.

The lower road from Nagpour to Sumbulpour, through Raipour, is from Golam Mohamed; and the upper, by Dumdah and Soorangur, is Mr. Thomas's; communicated by Mr. Ewart. The lower route, which is checked, laterally, by the diſtance of Raipour from Ruttunpour, points out alſo the courſe and navigable part of the Mahanuddy, or Mahanada river. Arung is the furtheſt point to which it is navigable, from the ſea. The upper road croſſes the river, near the conflux of the Hutſoo river, which is alſo navigable, to Dungong. By the deviation of the road between Nagpour and Soonpour, from the true line of direction towards Cattack, it may be inferred that the country on the ſouth of it, is either deſert, or in a ſtate of anarchy. We are however, not well informed on this point, but have every reaſon to ſuppoſe it; and the rather, as Mr.

Thomas mentions Dewancole near Soonpour, as a retreat of banditti.

Soorangur, where the roads divide to Sumbulpour, and Soonpour, is the burial place of the late Mr. Eliott; who died on his way from Calcutta to Nagpour, in October 1778. At that crisis, when the fate of the British empire in India, hung suspended by a slender thread, this gentleman was sent by Mr. Hastings, on an embassy to the Court of Nagpour, which at that time, might be said to hold the balance of power, in Hindoostan. Zeal for the public good, prompted him to undertake a service of great personal danger; and which eventually occasioned his death. Mr. Hastings caused a monument to be erected to his memory, on the spot: and also commemorated his early genius and attainments, and no less early death, in some lines, which make part of an imitation of an ode of Horace *. Soorangur is about 270 road miles short of Nagpour, and 470 from Calcutta; and lies out of the direct road.

I observed above, that Sumbulpour is misplaced; and this occasioned an error in all the places between Ruttunpour and Cattack. For the distance between Soorangur and Soonpour is too small; and between the latter and Cattack, too great; the Mahanada not making so deep a winding or elbow, between Boad and Sumbulpour, as Mr. Motte described, and as is represented in the map. Golam Mohamed reckoned only 137 cosses between Nagpour and Sumbulpour: but the construction will not allow of less than 157; which is a mistake not easily to be accounted for.

Boad, a fort near the Mahanada, is said by Col. Camac to be 40 cosses only, from Gumsoar, in the Ganjam district: by construction

* An early death was ELIOTT's doom,
I saw his op'ning virtues bloom,
And manly sense unfold;
Too soon to fade! I bade the stone,
Record his name 'midst hordes unknown,
Unknowing what it told.

HOR. Book II. Ode xvi.

See the New Annual Register for 1786.

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it is 46; which difference is probably occaſioned by the miſtake in the poſition of Sumbulpour. On the weſt of Boad, and near the Mahanuddy river, Mr. Thomas paſſed a town of the name of Beiragur; which I take to be the place noted in the Ayin Acbaree, as having a diamond mine in its neighbourhood. There is indeed, a mine of more modern date, in the vicinity of Sumbulpour; but this whole quarter muſt from very early times have been famous for producing diamonds. Ptolemy's *Adamas* river anſwers perfectly to the Mahanuddy: and the diſtrict *Sabaræ*, on its banks, is ſaid to abound in diamonds. Although this geographer's map of India, is ſo exceedingly faulty, in the general form of the whole tract; yet ſeveral parts of it, are deſcriptive. When we perceive the head of the river juſt mentioned, placed among the Bundela hills, and Arcot thruſt up into the middle of India; we ought to reflect, that Ptolemy's ideas were collected from the people who ſailed along the coaſt, and who deſcribed what they had ſeen and heard, without regard to what lay beyond it: and moreover, made uſe of too wide a ſcale; as commonly happens when the ſphere of knowledge is confined, and the geographer works *ad libitum*, from the coaſt, towards the interior of an unknown continent. Whoever conſults Ptolemy's map of India, ſhould carry theſe ideas in his mind: that the conſtruction of it is founded on three lines; one of which, is that of the whole coaſt, from the gulf of Cambay, round to the Ganges; a ſecond, the courſe of the Indus, and the gulfs of Cutch and Cambay; and the third, the common road from the Panjab to the mouths of the Ganges. The objects within theſe lines, have a relative dependance on each line reſpectively; and are invariably placed at too great a diſtance within them: it therefore happens, that an object which ſhould have occupied a place near one of the lines, is thruſt towards the middle of the map; and this being a general caſe, places on oppoſite ſides of India, are crouded together, as Arcot and Sagur (*Sagbeda*) are. At the ſame time the central parts are wholly omitted; as being, in reality, unknown. Some

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may treat with ridicule, what I have ſaid on the ſcore of PTOLEMY; but a work which has travelled down to us from the ſecond century of our æra, muſt have poſſeſſed ſomething worthy to recommend it, and to keep it alive: and, at leaſt merits an explanation.

Mr. Motte's route along the Mahanuddy, was deſcribed from computed diſtances, and bearings by a compaſs. He alſo took the latitude of Sumbulpour, in a rough manner, and made it nearly the ſame as that of Balaſore; that is, about 21 degrees and a half. The mouths of this river, which form an aſſemblage of low woody iſlands, like the Ganges, and many other rivers, have never been traced, but are deſcribed from report only. At the mouth of the principal channel, near Falſe Point, is a fortified iſland, named Cajung, or Codjung.

This brings us into the neighbourhood of the Chilka lake, which bounds the circars (or NORTHERN CIRCARS) on the north. This lake ſeems the effect of the breach of the ſea, over a flat, ſandy ſhore, whoſe elevation was ſomething above the level of the country within. Pulicat lake appears to have the ſame origin. Both of them communicate with the ſea, by a very narrow but deep opening; and are ſhallow within. The Chilka lake is about 40 miles in length from N E to S W; and in moſt places 12 or 15 wide; with a narrow ſlip of ſandy ground, between it and the ſea. It has many inhabited iſlands in it. On the N W it is bounded by a ridge of mountains; a continuation of that, which extends from the Mahanuddy to the Godavery river; and ſhuts up the circars towards the Continent. The Chilka, therefore, forms a paſs on each ſide of it, towards the Cattack province. It is deſcribed from the obſervations of Mr. Cotsford, and of Capt. Campbell: though poſſibly the extent of it may be ſomewhat more than is given, towards the north. It affords an agreeable diverſity of objects: mountains, iſlands, and foreſts; and an extended ſurface of water, with boats and ſmall veſſels ſailing on it. To thoſe who ſail at
ſome

me diſtance from the coaſt, it has the appearance of a deep bay; the ſlip of land not being viſible.

The famous pagoda of Jagarnaut, lies a few miles to the eaſtward of this lake, and cloſe on the ſea ſhore. It is a ſhapeleſs maſs of building: and no otherwiſe remarkable, than as one of the firſt objects of Hindoo veneration; and as an excellent ſea mark, on a coaſt which is perfectly flat, and exhibits a continued ſameneſs; and that in a quarter, where a diſcriminating object becomes of the higheſt importance to navigators. It has no claim to great antiquity: and I am led to ſuppoſe that it ſucceeded the temple of Sumnaut in Guzerat; which was deſtroyed by Mahmood in the 11th century. Poſſibly the remote ſituation, and the nature of the country near it, ſhut up by mountains and deep rivers, might recommend the ſpot, where Jagarnaut is ſituated: for we find Oriſſa was not an early conqueſt.

The circars are deſcribed from various authorities. The conſtruction of the ſea coaſt has already been diſcuſſed in the firſt ſection. Our poſſeſſions in this quarter, extend no where more than 50 B. miles inland; and in ſome places, not more than 20; between the Chilka lake, and the Godavery river: and between this river and the Kiſtna, about 70 or 75. So that the circars form a ſlip of territory, bounded on one ſide by the ſea; and on the other, generally, by a ridge of mountains, that runs nearly parallel to it. Col. Pearſe's line, runs entirely through this tract; and may be conſidered as the foundation, on which a ſuperſtructure has been raiſed, by the labours of many different people. The diſtrict round Ganjam, known by the name of Itchapour, and which is one of the diviſions of the Cicacole country; is drawn from Mr. Cotsford's very elegant map. The Tickly diſtrict, adjoining to it, on the ſouth, is chiefly from Lieut. Cridland's ſurveys; and extends to Cicacole town (the *Cocala* of Ptolemy). From Cicacole, to Viſagapatam, including the country to the foot of the mountains, is taken from an old MS. map of Mr. Dalrymple's: and from thence

thence to Rajamundry, is taken from a map of Col. Forde's marches, collated with Montreſor's large map, at the Eaſt India Houſe. It is all along to be underſtood that Col. Pearſe's line (corrected as in page 10) forms the ſcale of the parts in queſtion. The remaining part of the circars; that is, between the Godavery and Kiſtna rivers, is chiefly taken from a map of that country, publiſhed by Mr. Dalrymple; the ground-work of which is compoſed of the late Major Stevens's materials. The routes to Joypour and Badrachillum, are on the authority of Mr. Claud Ruſſell; and the poſition of the latter place, which is very near to the Godavery, accords with Mr. Montreſor's idea, as expreſſed in his large map.

The Godavery river, or Gonga Godowry, (ſometimes called the *Gang* in Feriſhta's hiſtory) was, till very lately, conſidered as the ſame with the Cattack river, or Mahanuddy. As we had no authority, that I can find, for ſuppoſing it, the opinion muſt have been taken up, on a ſuppoſition that there was no opening between the mouths of the Kiſtna and Mahanuddy (or Cattack river) of magnitude ſufficient for ſuch a river as the Gonga. It could not be for the want of ſpace ſufficient for the Cattack river to accumulate in, independent of the Gonga; for the diſtance is as great from the mouth of the Cattack river to the Berar mountains; as from the mouth of the Godavery to the Baglana mountains. The truth is, that no juſt account of theſe rivers, any more than of the Burrampooter, had then reached any European geographer. Succeeding enquiries and diſcoveries have made it certain, that the Godavery is the river that runs under Rajamundry, and falls into the ſea between Coringa and Narſapour; and that the Cattack river riſes in the Ruttunpour country. But the recent diſcovery (to Europeans) of the Bain Gonga, whoſe courſe is directly acroſs the ſuppoſed courſe of the Gonga, (the name given to this compound river, whoſe head was the Godavery, and tail the Mahanuddy) clears up at once the ambiguity; if any there could be ſuppoſed to remain, after the diſcuſſion of the ſubject in the memoir of the map of 1782. The

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Godavery has its ſource about 90 miles to the N E of Bombay; and in the upper part of its courſe, at leaſt, is eſteemed a ſacred river by the Hindoos: that is, ablutions performed in its ſtream, have a religious efficacy ſuperior to thoſe performed in ordinary ſtreams. The Beemah is ſuppoſed to have ſimilar virtues: nor are ſacred rivers by any means uncommon, in other parts of India. The Godavery, after traverſing the Dowlatabad ſoubah, and the country of Tellingana, from weſt to eaſt, turns to the ſouth-eaſt; and receiving the Bain Gonga, about 90 miles above the ſea, beſides many ſmaller rivers, ſeparates into two principal channels at Rajamundry; and thoſe ſubdividing again, form altogether ſeveral tide harbours, for veſſels of moderate burthen. Ingeram, Coringa, Yanam, Bandarmalanka, and Narſapour, are among the places ſituated at the mouth of this river; which appears to be the moſt conſiderable one, between the Ganges and Cape Comorin. Extenſive foreſts of teek trees border on its banks, within the mountains; and ſupply ſhip timber for the uſe of the ports abovementioned: and the manner of launching the ſhips in thoſe ports, being very ſingular, I have ſubjoined an account of it in a note *. The Godavery was traced about 70 miles above its mouth; the reſt of its courſe is deſcribed only from report; ſave only at the conflux of the Bain river, and in places where different roads croſs it; un-

* The ſhip or veſſel is built with her keel parallel to the ſhore; and, as it may happen, from 200 to 300 feet from low water mark. When compleated, ſhe is placed on two ſtrong pieces of timber, called *dogs* (in the nature of a ſledge of enormous dimenſions) and on theſe, a ſort of moveable cradle is conſtructed, to keep the veſſel upright. Two long Palmyra trees, as levers of the ſecond kind, are then applied to the ends of the *dogs*, and by means of theſe powers, they, together with the veſſel that reſts on them, are gradually puſhed forwards over a platform of logs, until they arrive at the loweſt pitch of low water; or as far beyond it, as the levers can be uſed. Tackles are applied to the ends of the levers, to increaſe the power: the fulcrums, are wreaths of rope, faſtened to the logs on which the veſſel ſlides: and are removed forwards as ſhe advances. Two cables from the land ſide, are faſtened to the veſſel, to prevent her from ſliding too rapidly; and theſe are gradually let out, as ſhe advances.

It is commonly the work of two days to tranſport the veſſel to the margin of low water. If the tide does not riſe high enough to float her from thence (which it ſeldom does if the veſſel be of any conſiderable burthen) part of the cradle is taken away, and the ſhip left chiefly to the ſupport of the cables till high water, when they are ſuddenly let go, and the veſſel falls on her ſide: and with the fall, diſengages herſelf from the remains of the cradle, and at the ſame time, plunges into deeper water. A ſhip of 500 tons has been launched in this manner.

til we arrive at the part where M. Buſſy's marches have deſcribed it, in common with other particulars.

The courſe of the Bain Gonga (or Bain river) as I have juſt obſerved, is quite a new acquiſition to Geography; and we are indebted to the late Col. Camac, for it. This river, which has a courſe of near 400 miles, was not known to us, even by report, till very lately. It riſes near the ſouthern bank of the Nerbudda, and runs ſouthward through the heart of Berar; and afterwards mixes with the Godavery, within the hills that bound our northern circars. This circumſtance confutes at once the idea of the Godavery being a continuation of the Cattack river. I cannot find how far up the Bain Gonga is navigable; but it is mentioned as a *very large* river, in the early part of its courſe; and is probably equal in bulk to the Godavery, when it joins it.

There yet remains in the map, between the known parts of Berar, Golconda, Oriſſa, and the circars, a void ſpace of near 300 miles in length, and 250 in breadth; nor is it likely ever to be filled up, unleſs a very great change takes place in the ſtate of European politics in India: for we appear not to have penetrated beyond the firſt ridge of mountains, till very lately; when the diſcovery of the black pepper plant was made, in the diſtricts of Rampa.

Beyond the *great* ridge of mountains (which may be 60 or 70 miles inland) and towards Berar, is a very extenſive tract of woody and mountainous country, with which the adjacent countries appear to have but little, if any, communication. We may fairly ſuppoſe that to be a country void of the goods in general eſteem among mankind, that does not tempt either their avarice, or ambition. Although ſurrounded by people who are in a high degree of civilization, and who abound in uſeful manufactures, we are told that the few ſpecimens of theſe miſerable people who have appeared in the circars, uſe no covering but a wiſp of ſtraw. We know not, with any degree of certainty, how far this wild country extends within the great ridge of mountains, between the parallels of 17°

and

and 20°: but the firſt civilized people that we hear of beyond them, are the Berar Mahrattas. I think it probable that it may extend 150 miles, or more. However, a party of Berar Mahrattas found their way through this country, and the Bobilee hills, in 1754, (Orme vol. I. page 373) at an opening called Salloregaut, in the Cicacole circar. Our ignorance reſpecting this tract may well be accounted for, by its lying out of the line of communication between our ſettlements; and by its never having been the ſeat of any war, in which the Europeans have taken part. I ſuſpect, however, that the tract in queſtion, is either too deſert, or too ſavage to be eaſily or uſefully explored.

Between the Godavery and Kiſtna rivers, and on the north-eaſt of Hydrabad, was the ancient country of Tellingana (or Tilling) of which Warangole (the Arinkill, of Feriſhta) was the capital. The ſite of this capital is ſtill evident, by means of the old ramparts; which is amazingly extenſive. A modern fortreſs is conſtructed within it; and is in the poſſeſſion of the Nizam. Col. Peach marched by way of Ellore and Combamet, to this place, during the war of 1767; and the road was ſurveyed by Lieutenant, now Major Gardner. His horizontal diſtance from Ellore to Warangole was 134 G. miles: and the bearing, W 33 N *. A note accompanying Major Stevens's copy of this route, ſays, that the latitude of Warangole is 17° 57′: and this bearing and diſtance accords with it. I am ignorant of the exact relative poſitions of Warangole and Hydrabad: Montreſor's map makes the diſtance between them 45 G. miles. My conſtruction makes it 47, and the bearing of Warangole from Hydrabad N E by N. Montreſor's bearing of Warangole from Ellore, is very faulty; and it is remarkable, that though there are ſeveral plans of this road, moſt of them differ widely, both in bearing and diſtance. Major Gardner's I apprehend, may be depended on.

* His bearing is corrected by the compaſs of Col. Pearſe's map, from which it differed 2° 55′.

The places round Warangole, are taken from a MS. map of Mr. Dalrymple's. Byarem, Culloor, Damapetta, &c. are all from MSS. belonging to the ſame gentleman.

The road from Hydrabad to Nagpour, was communicated by Mr. John Holland. The diſtance is ſtated at 169 coſſes; which agrees remarkably well with the interval on the map: and, as Nagpour is a fixed poſition, we may infer, that Hydrabad ought to be rather in 17° 12′ than 17° 24′ (ſee page 140). The two places bear nearly N and S from each other; and the whole diſtance, of courſe, is difference of latitude. A place named Indelavoy or Endelavoy (Indelvai, in Tavernier, and Thevenot) appears in this route, between the Godavery and Hydrabad: and Thevenot's route from Aurungabad to Hydrabad, falling in there, determines the direction of both roads; and alſo the poſitions of Indour, and Sitanagur; the latter being a famous pagoda in that part. Neermul, a city of note, belonging to the Nizam, alſo riſes in this route; and is about 10 G. miles from the north ſide of the Godavery, and about 132 from Nagpour. Mr. Ewart alſo collected ſome routes between Nagpour, Neermul, and Hydrabad: and a route by way of Chanda, appears in Mr. Orme's hiſtorical fragments of the Mogul empire. As one of Mr. Ewart's routes gives the poſition of this Chanda, (a conſiderable city belonging to Nagpour, and about 70 G. miles to the ſouth of it) we are enabled to lay down this road; which was marched over, by M. Buſſy.

Another principal branch of the Godavery, is the Manzorah; a conſiderable river which riſes in the country of Amednagur, and after a circuitous courſe by Beder, joins the main river below Nander.

Many intereſting poſitions ariſe in the marches of M. Buſſy, between Hydrabad and Aurungabad, by the two roads of Beder, and Nander; and no leſs in the march from Aurungabad to Sanore. Beder is a fortified city, about 80 road miles to the N W of Hydrabad; and was in former times the capital of a conſiderable kingdom.

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The road from Beder to Burhanpour, through Patris and Jaffierabad, is from M. Thevenot. It aſſiſts in determining the poſition of Jaffierabad, a principal town on the N E of Aurungabad. The road from Nander to Nagpour, through Mahur, is partly from M. Buſſy, and partly from Mr. Ewart; by whoſe account Mahur is 78 coſſes, but by conſtruction about 87, S W from Nagpour.

The road from Poonah to Beder, is taken from the journal of the late Col. Upton; who returned from his embaſſy, by the route of Hydrabad, and the circars, to Bengal. His journal has much merit, as being full and deſcriptive of the countries he paſſed through; as well as of their reſpective boundaries: but he was unlucky in eſtimating his courſe; and it happens that we have no croſs line to correct it.

The road from Aurungabad to Sanore-Bancapour, is taken from the map of M. Buſſy's marches: and Sanore was the extreme point of his campaigns, that way. See Orme vol. I. p. 425. I could only take the bearing and diſtance, as I found them in the map: and it is a great defect, that in ſo conſiderable an extent, there ſhould be no obſervation of latitude; that we know of. By the *data*, Sanore is placed in lat. 15° 39′, lon. 75° 44′; or about 117 G. miles E by N from Goa. There is nothing to check this poſition, from the Malabar ſide: not even the number of computed coſſes from Goa. However, let the matter ſtand as it may, with reſpect to the mathematical exactneſs of the queſtion; had it not been for theſe marches of M. Buſſy (the only monument remaining to the French nation, of their former ſhort-lived influence and power in the Deccan) the geography of theſe parts, would have been extremely imperfect: but as they extend through more than 4 degrees of latitude, and more than 5 of longitude; they occupy not only the principal part of the Deccan, but by fixing the poſitions of ſo many capital places, and interſecting the courſes of ſo many rivers, tend to clear up many other poſitions.

Visiapour (or properly Bejapour) is not so well ascertained as might be wished. Mandesloe, who travelled the roads himself, says, that it is 80 leagues from Dabul, on the coast of Malabar; and 84 from Goa; which, if meant of French leagues of 3000 paces, with an allowance of one in seven for windings, will give 142 G. miles from Dabul, and 149 from Goa: making Bejapour in lat. 17° 26′ 30″, lon. 75° 19′. P. du Val, who formed a map of Mandesloe's routes (a copy of which is in the British Museum) and probably had lights, besides what are furnished by the travels, to guide him; makes the distance between Dabul and Bejapour, greater than between Bejapour and Goa. And this I think likely to be the case, though contrary to what is said in the travels.

Tavernier reckons 85 cosses from Goa to Bejapour (or rather perhaps from Bicholim, the landing place on the continent) or 8 days journey: which 8 days, should be about 144 G. miles on a straight line; and agrees with what is said above. He says also, that from Bejapour to Golconda, the distance is 9 days journey, or 100 cosses more: but this account must be exceedingly vague; because Goa and Golconda are near 230 cosses asunder, by the directest route; and Bejapour lies more than 40 cosses out of the line. Fryer reckons Bejapour 10 days journey from Carwar, or about 180 G. miles. Cæsar Frederick agrees with Tavernier in making it 8 days journey from Goa.

The *Lettres Edifiantes* make the latitude of Bejapour 17° 30′. I have placed it in lat. 17° 26′ 30″, lon. 75° 19′; that is, 149 G. miles from Goa; 142 from Dabul; 171 from Carwar; and 203 from Golconda. At the same time, I think it probable, that it may not be within 20 miles of its true position. The particulars of the roads leading to it from Dabul and Goa, are from P. du Val's map. Bejapour is a considerable city, and was once the capital of a large kingdom of the same name. It is now in the hands of the Poonah Mahrattas.

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The travels of M. Anquetil du Perron from Goa to Poonah, have furniſhed ſome uſeful matter towards filling up a part, that has long remained almoſt a perfect void, in the maps of India. His route croſſes that of Mandeſloe, deſcribed by P. du Val, at a place named Areek or Areg, a few miles from the north bank of the Kiſtna, and on the road between Dabul and Viſiapour; and thus, fortunately, enables us to join his route with Mandeſloe's, with ſome degree of certainty. M. Anquetil ſpeaks of coſſes and leagues, as ſynonimous terms; and reckons 40½ of theſe from Vaddal, at the weſtern foot of the Gauts, and about 12 coſſes (or leagues) S E or E S E from Goa, to Areg: and 51½ more from Areg to Poonah. Now the diſtance from Vaddal to Areg, cannot be ſuppoſed leſs than 100 G. miles of horizontal diſtance; and from Areg to Poonah nearly the ſame: ſo that one can hardly tell how to denominate his itinerary meaſure; which is about 2 G. miles and a ſixth in horizontal meaſure. On the road from Poonah to Nimderra (in page 138) we have obſerved the ſame deviation from the ſtandard of the itinerary meaſures of the country; for on that road, his coſſes turn out exactly 2 G. miles each, on a ſtraight line. It ſhould be a rule for every traveller to uſe, not only the meaſures, but the denomination of the country he paſſes through; for then we are likely to poſſeſs a better ſcale, than his judgment can furniſh us with. This will be underſtood to apply to computed diſtances only. I have proportioned M. Anquetil's diſtances, as well as I could, conſiſtently with the ſuppoſed ſituation of Areg, in reſpect of Viſiapour; which latter place, was the *primary ſtation* in this caſe.

His route from Goa to the Kiſtna, is ſo far on the ordinary road to Viſiapour, by the Ponda Gaut. The route from the croſſing place of the Kiſtna to Poonah, gives a general idea of the upper part of the courſe of that river; and alſo points out nearly the ſituation of Sattarah, the capital of the Mahratta ſtate, during the time of the Rajahs of Sevagee's line. This place appears, by the propor-

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tioned diſtance of M. Anquetil's route, to be about 38 G. miles (horizontally) nearly S by E from Poonah. A native of this place informed me that Sattarah was reputed to be 30 coſſes (or about 43 G. miles) S E of Poonah. I have no doubt but that M. Anquetil's route may be relied on, for the diſtance. It is to Mr. Orme's hiſtorical fragments before-mentioned, that I am indebted for the knowledge that M. Anquetil's book contained any ſuch matter. I lament exceedingly that he had not a compaſs with him, with which he might have taken the bearing of the road between Goa and Aurungabad: for in a quarter where geography is ſo bare of materials, that every notice of the kind is received with avidity, that gentleman had a fair opportunity of diſtinguiſhing himſelf in this way; as he may be ſaid literally to have trod a new path.

The notes to Mr. Orme's hiſtorical fragments afford ſome notices and ſuggeſtions, that have been of ſervice to this work. The general ſituation of Pannela, ſo much celebrated in the hiſtory of Sevagee, is placed conformable to his ſuggeſtion, in the ſame book. I have alſo followed him, in ſuppoſing the Atoni of P. du Val, to be Huttany, once an Engliſh factory in the heart of Viſiapour. Hubely, another factory, is ſaid by Fryer to be 6 days journey from Carwar: and by his manner of expreſſion, I infer it to be ſituated on the road to Viſiapour. It is in the ſame place that Fryer ſays, that Viſiapour is 10 days journey from Carwar.

Naldorouk, Malkar, Sakkar, Kandjoly, and other places in the Deccan, are alſo from Mr. Orme's book; which points out the ſource of the Kiſtna river to be on the N W of Sattarah; and it cannot be far from it, as the Gauts, or Indian Appenine, lie ſo cloſe to Sattarah; and the Kiſtna is known to ſpring from the eaſt ſide of that ridge.

Raolconda, a famous diamond mine, is placed in Mr. Montreſor's map, about 15 G. miles to the weſt of Ralicotte, and 12 from the north bank of the Kiſtna; but I know not on what authority

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Tavernier, who viſited Raolconda, gives its diſtance from Golconda at 17 gos, of 4 French leagues each. Tavernier mentions his croſſing a river that formed the common boundary of Golconda and Viſiapour, about 4 *gos*, or more, before he came to Raolconda. This river can be no other than the Beema, which, to this day, forms the eaſtern boundary of Viſiapour; and paſſes about 80 or 82 G. miles to the weſt of Golconda, croſſing the road from it to Ralicotte: and if we reckon the 82 miles, 13 gos; that is, forming a ſcale from the diſtance between Golconda and the river Beemah; each gos will be 6,3 G. miles in horizontal diſtance (or nearer 3, than 4 French leagues) and Raolconda will be placed about 25 G. miles on the weſt of the Beemah; or 11, eaſt of Ralicotte.

If we take the *gos* at 4 French leagues, without regarding the proportion ariſing from the above calculation, it will bring Raolconda very near the ſituation aſſigned it by Montreſor. But I have nevertheleſs adopted the former, thinking it, on the whole, the moſt conſiſtent.

Cæſar Frederick ſays that the mines (Raolconda) are ſix days journeys from Biſnagur: but this will apply equally to either of the above poſitions.

The general courſe of the Kiſtna river from the ſea to Bezoara, is chiefly taken from Major Stevens's maps, communicated by Mr. Dalrymple. From thence, to Timerycotta is from Montreſor, collated with Capt. Davis's ſketch of Guntoor, &c. and a French MS. map. From that place to the conflux of the Tungebadra, it is drawn only from report, and in the form it is uſually done, in the maps that include its courſe. From the mouth of the Tungebadra to Gutigui, or Catigui, its courſe is drawn in a French copy of M. Buſſy's marches; and I have corrected it in two places by General Joſeph Smith's journal. Above Gutigui, its courſe is marked in certain places, by the roads that croſs it; particularly thoſe travelled by M. Anquetil du Perron: but upon the whole, nothing more than its mere general courſe is known, except within

70 miles of the ſea. General Joſeph Smith remarks, that the Kiſtna was fordable both above and below the conflux of the Beemah river, in the month of March: and that a few miles below the mouth of the Beemah, its bed was 600 yards wide, and exhibited an uncommon appearance, from the number and diverſity of the rocks in it.

The Kiſtna and Godavery rivers, however remote at their fountains, approach within 80 miles of each other, in the lower parts of their courſe; and form an extenſive tract of country, compoſed of rich vegetable mould, ſuch as is uſually found at the mouths of large rivers. Here we behold, on a ſmaller ſcale, the ſame economy that is obſervable in the agency of the Nile and Ganges, in forming the DELTAS of Egypt and Bengal; by means of the finer particles of earth, that are ſwept down by thoſe vaſt rivers, and their branches, in a courſe of more than 2000 miles. Thoſe who have been on the ſpot, and reaſon from analogy, in this caſe, will readily ſuppoſe that the whole, or the greateſt part of the tract, included between Samulcotta and Pettapolly (about 150 miles in length along the ſea ſhore, and from 40 to 50 wide) is in reality, a gift of the two rivers, Godavery and Kiſtna. The ſame appearances indeed, may be obſerved at the mouths of the Cattack and Tanjore rivers; but the two rivers in queſtion, by draining a much greater extent of country (that is, from the 15th to the 21ſt degree of latitude) have collected materials for a greater quantity of new land. Within this new formed land, and about midway between the Godavery and Kiſtna, the ſoil forms a hollow ſpace; which in its loweſt part, is a lake at all ſeaſons; and in all the other parts, an extenſive inundation, during the ſeaſon of the periodical rains; being then a lake of 40 or 50 miles in extent. This is called the Colair lake; and its origin may be referred to the ſame cauſe, as that which produces the lakes and moraſſes of the Egyptian and Bengal deltas: which is, that the depoſition of mud by the two rivers (or the two branches of one river) at the time when they

they overflow, is greateſt near the banks: for the farther the inundation flows from the margin of the river, the more of its earthy particles will be depoſited in its way; and the leſs will remain for the diſtant parts; which therefore cannot be filled up to the level of the ground, neareſt the bank of the river: and thus the ground will acquire the form of an inclined plane, from each river bank towards the interior part of the country, where a hollow ſpace will be left: but it may be expected that when the rivers have raiſed their banks, and the adjacent country, to the greateſt poſſible height, which is that of the periodical flood (and the ground can be raiſed no higher) the ſubſequent inundations will find their way into the hollow ſpace, from the lower part of the river; and will gradually fill up with mud, the part of the lake that lies towards the ſource of it: and as the new land continues to encroach upon the ſea, the lake will travel downwards in the ſame proportion. For the natural courſe of things, is, that when the new lands that are thefurtheſt removed from the ſea, are raiſed as high as the agency of the waters will admit, that portion of the mud that cannot be depoſited above, is carried lower down to raiſe other lands; or to lay the foundation of new land, further out: and thus the regular declivity of the channel is preſerved. All lands ſubject to inundations, *muſt* continue to riſe; becauſe the water of the inundation depoſits, at leaſt, *ſome portion* of the earthy particles ſuſpended in it: but there muſt be a certain point of elevation, beyond which no delta or river bank, can riſe; for each ſucceſſive point in the courſe of a river, muſt be lower than the preceding one. As to the Nile, its banks will admit of being raiſed, throughout the whole Said, as well as lower Egypt; the cataracts being ſo much elevated above the lower part of the river: and Egypt alſo differs in another particular, from India, in that no rain falls there to waſh away the light parts of the ſoil into the river, before the inundation: whereas, the heavy rains of Bengal, previous to the inundation, muſt reduce the level of the elevated grounds, and

contribute partly towards filling up the hollows: and no ſmall proportion of what is depoſited in one ſeaſon, will be carried lower down, or into the ſea. So that the progreſs of raiſing the lands, muſt have been more rapid in Egypt than in any of the moiſter regions.

It appears to me that the gentlemen who have lately reaſoned ſo ingeniouſly on the increaſe of the delta of the Nile, have omitted a circumſtance of conſiderable moment, as it reſpects the length of the periods required to form given quantities of new land in; or to elevate the old to a certain degree. We never fail to remark on a ſurvey of the naked ſummits of mountains, that the rain has in a courſe of ages, waſhed away the earth that covered them: or in other words, that there is a progreſſive motion of the finer particles of earth, from the mountains, towards the vallies. Admitting this to be true, and that the ſtores of fine earth are not inexhauſtible; the longer the rivers continue to run, the leſs quantity of earth they muſt carry away with them: and therefore, the increaſe of the deltas, and other alluvions of capital rivers, muſt have been more rapid in early periods of the world's age, than now.

After this long digreſſion, it would be unpardonable in me to omit an account of a plan propoſed by my ingenious friend Mr. John Sulivan: which was, to open a communication at all ſeaſons, between the Colair lake and its parent rivers, with a view to the improvement of the adjacent lands (which form a part of the Circars) and of the inland navigation. It appears that an imperfect channel already exiſts, between the lake and the Godavery river; as well as the traces of an unfiniſhed one, towards the Kiſtna: and which this gentleman, with great appearance of probability, imputes to a like deſign having been formed by the natives, in early times. This ſcheme, which appears to be practicable on eaſy terms, has never been adopted: the propoſal was made early in 1779: and for the particulars, I ſhall refer to the tract itſelf, which alſo contains much information on other ſubjects.

To

To return to the ſubject of the Memoir. The Beemah river is known to be a principal branch of the Kiſtna, coming from the N W, and joining it near Edghir. It riſes in the mountains, on the north of Poonah, probably not far from the ſources of the Godavery; and paſſes within 30 miles of the eaſt ſide of Poonah, where it is named *Bewrah*, as well as Beemah; and is alſo eſteemed a ſacred river. General Smith croſſed this river, when accompanying the Nizam from Hydrabad towards Myſore, in 1766; about 10 miles above its junction with the Kiſtna, where it was fordable.

The Viſiapour river is a branch of the Beemah, and is named Mandouah, by Mandeſloe.

The mountains named the Gauts, Gattes, or INDIAN APPENINE, and which extend from Cape Comorin to the Tapty, or Surat river; occupy, of courſe, a part of the tract, whoſe conſtruction is diſcuſſed in this ſection: but I ſhall reſerve a general account of the Gauts, for the next ſection; which treats of the peninſula in general, and of the Gauts, as included in it. This celebrated ridge does not terminate in a point or promontory, when it approaches the Tapty; but departing from its meridional courſe, bends eaſtward, in a wavy line, parallel to the river; and is afterwards loſt among the hills, in the neighbourhood of Burhanpour. In its courſe along the Tapty, it forms ſeveral paſſes, or deſcents, (that is, *Gauts*, according to the original import of the word, which means a landing place) towards that river; whence the country into which the paſſes deſcend, was originally named Candeiſh, or the low country. It would appear, that the ridge abates of its great height, after paſſing the parallel of Baſſeen, northward; for Mr. Farmer, in his way from Poonah towards Naderbar, obſerved that the paſſes had all a deſcent northward; forming as it were, a ſeries of ſteps, until he landed in Candeiſh. He was then a hoſtage with Madajee Sindia; who at that time led the grand Mahratta army into Guzerat, againſt General Goddard.

The country inclofed by this bend of the Gauts, is named Baglana, or Bocklana; and extends the whole way from the Tapty river to Poonah. It is mountainous, of courfe; and contains in it, many ftrong fortreffes. Among thefe, were Rairee and Jeneahgur, the ftrong holds of Sevagee, in the laft century: but I cannot trace out their pofitions. It is furprifing, confidering how long the Englifh have had fettlements at Bombay and Surat, that there fhould be no map, or other record, defcriptive of the geography of Baglana; or of any part of the tract between Bombay and Aurungabad. The routes of M. Anquetil du Perron, and of Mr. Farmer, together with Mr. Smith's line, have defcribed the roads leading from Poonah to Noopour, and Burhanpour: but all on the weft of thefe lines, is a blank, for an extent of 100 miles in width, and 150 in length: even the pofition of Naffick-Trimuck, a celebrated place of Hindoo worfhip, on the N E of Baffeen, is not well known; and M. Anquetil du Perron's account of its pofition, in refpect of fome points in his route from Poonah to Surat, is not fatisfactory. It is fituated near the fprings of the Godavery; and they muft be on the eaft fide of the Gauts, and nearly on a parallel with Bahbelgong.

Some general information refpecting the fituation of the Teek forefts, and of the extent of the Britifh conquefts in 1780 and 1781, along the weftern foot of the Gauts, between Baffeen and Surat, was obligingly communicated by Mr. Hunter of the Eaft India Direction; and by Mr. Holmes. The Teek forefts, from whence the marine yard at Bombay is furnifhed with that excellent fpecies of fhip timber, lie along the weftern fide of the Gaut mountains, and other contiguous ridges of hills, on the north, and north-eaft of Baffeen: the numerous rivulets that defcend from them, affording water carriage for the timber. I cannot clofe this account without remarking the unpardonable negligence we are guilty of, in delaying to build Teek fhips of war for the ufe of the Indian feas. They might be freighted home, without the ceremony of regular equip-

equipment, as to mafts, fails and furniture; which might be calculated juft to anfwer the purpofe of the home paffage, at the beft feafon: and crews could be provided in India. The letter fubjoined in a note, and which was written with the beft intentions, 9 or 10 years ago, will explain the circumftances of the cafe *. Teek fhips of 40 years old and upwards, are no uncommon objects in the Indian feas: while an European built fhip is ruined there, in 5 years. The fhips built at Bombay are the beft, both in point of workmanfhip and materials, of any that are conftructed in India: and although 4th rates only are mentioned in the letter, there is no doubt but that 3d rates may be conftructed; as there is a choice of timber. The Spaniards build capital fhips in their foreign fettlements. The Eaft India Company have a Teek fhip on her fourth voyage, at prefent; which fhip has wintered in England: therefore any objection founded on the effects of froft, on the Teek timber, is done away.

* "Frequent have been the opportunities I have had, of obferving how very rapid the decay of fhips built of European timber, is, in the Eaft Indies: and, on the contrary, how durable the fhips are that are built of the wood of that country, namely, the TEEK: which may not improperly be ftyled INDIAN OAK. The number of fhips of war that were ruined in thofe feas, during the late war (1757 to 1762) may be admitted as a proof of the former remark; and the great age of the fhips built in India, may ferve to prove the latter. What I mean to infer from this, for your Lordfhips ufe, is, that fhips of war under third rates, may be conftructed in India; and with moderate repairs, laft for ages: whereas, a fhip of european conftruction can remain there but a very few years: to which difadvantage, may be added, that of lofing, in the mean time, the fervices of the fhips that are fent to relieve the worn out ones.
Bengal produces iron and hemp; and the neighbouring forefts, pine mafts: nothing is wanted to bring all thefe into ufe, but a fit opportunity, and proper encouragement."

August 20, 1778.

SECTION

SECTION V.

The Countries contained in that Part of the PENINSULA, *lying on the South of the* KISTNA *River.*

THIS tract, which in extent is not a fifth part larger than the Bengal provinces; yet, by its political divisions, by the talents and ambition of its Princes, and moreover, by their being stimulated by the different European powers, whose mercantile views led them thither; it has furnished of late years, more matter for speculation and history, than perhaps, all the rest of the Mogul empire put together *. But although it has been the theatre of repeated wars between the Europeans and the natives, as well as between the Europeans themselves; yet so ample a supply of geographical matter has not been supplied, as by the wars and negociations in the north. The geography of some of the western parts of the peninsula, are as little known to us, as that of the central parts of Hindoostan.

* It is lamentable to a feeling mind to reflect how large a portion of their miseries, the unhappy natives of the Carnatic owe to the English: I mean from the insufficient protection afforded them, at the commencement of the war of 1780. The saying of the old woman to Philip, "BE NO LONGER KING," might well have been applied to the executive government in the Carnatic. Much eloquence has been employed in describing the wretched state of the inhabitants of Bengal; when, in reality, *they* are to be classed among the happiest nations throughout Asia. Poets deal in fiction: but a plain tale of woe will best describe the sufferings of the helpless inhabitants of the Carnatic, during Hyder's invasion. And here I cannot refuse a tribute of applause to the character and abilities of the Nobleman, who assumed the government of Madras, at a period when the British interests could hardly be said to have an existence in the Carnatic: Hyder having nearly the entire possession of the whole country. I cannot express my opinion of this Nobleman's character, in a more forcible manner, than by regretting that such shining talents, controlled by a disinterested mind, should not be employed for the benefit of the public.

The figure of this tract is a triangle, of which the courſe of the Kiſtna river forms the baſe, and the coaſts of Coromandel and Malabar, the ſides. Its extent from the Kiſtna to Cape Comorin, which forms the apex of the triangle, is about 600 Britiſh miles; and its breadth, in the wideſt part, is about 550.

The conſtruction of the ſea coaſts, has been already deſcribed in the firſt ſection; and that of the courſe of the Kiſtna river, in the latter part of the fourth.

Madras, or Fort St. George, as has been obſerved (in page 13) lies in lat. 13° 5′, lon. 80° 25′; and cloſe on the margin of the ſea. It is the principal ſettlement of the Britiſh Eaſt India Company, on the eaſt ſide of the peninſula; and is a fortreſs of very great ſtrength, including within it a regular, well built city. But as it was impoſſible to fortify and garriſon, in an effectual manner, a city of ſuch extent as the political and commercial conſequence of Madras, muſt give birth to; there is a ſecond city, ſeparated from Madras, by the breadth of a proper eſplanade only; and although near four miles in circuit, is fortified in ſuch a manner, as to prevent a ſurpriſe from the enemy's horſe; an evil to which every open town in the Carnatic, is ſubject; from the dryneſs and evenneſs of the country. Madras was ſettled by the Engliſh about the year 1640, and was hardly defenſible, until the deſtruction of Fort St. David in 1758, pointed out the neceſſity of it. It is now perhaps, one of the beſt fortreſſes in the poſſeſſion of the Britiſh nation: and although not of ſo regular a deſign as Fort William, yet from the greater facility of relieving it by ſea, and the natural advantages of ground, which leaves the enemy leſs choice in the manner of conducting his attacks; it may on the whole be deemed at leaſt equal to it.

Madras, in common with all the other European ſettlements on this coaſt, has no port for ſhipping; the coaſt forming nearly a ſtraight line: and it is alſo incommoded with a high and dan-

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gerous *ſurf* * or wave, that breaks upon it; and induces the neceſſity of uſing the boats of the country, to land in. Theſe are of a ſingular conſtruction; being formed without ribs, or keel; with flat bottoms, and having their planks ſewed together: iron being totally excluded throughout the whole fabrick. By this conſtruction, they are rendered flexible enough to elude the effects of the violent ſhocks which they receive, by the daſhing of the waves, or ſurf, on the beach: and which either overſets, or breaks to pieces, a boat of European conſtruction. No port for large veſſels occurs between Trinkamaly and the Ganges: that is, in an extent of 15 degrees: ſo that the comparative proximity of the former, to Madras and Pondicherry, renders it a capital object, both to the Engliſh and French.

The Company's lands (or Jaghire †) extend from Madras to the Pullicate lake, northward; and to Alemparvé, ſouthwards: and weſtward, beyond Conjeveram: that is, about 108 B. miles along ſhore, and 47 inland; in the wideſt part. This whole tract hath had a regular ſurvey: and Mr. Pringle, who ſurveyed the marches of the army under Sir Eyre Coote, during the late war, has aſcertained ſome intereſting geographical poſitions, beyond it; and by this means extended very conſiderably, the dimenſions of what may be called the *ſurveyed tract*: ſo that we are enabled, with a little adventitious help, to fill up with tolerable accuracy, all the country between the parallel of Pullicate northward, and Cuddalore, ſouthward; bounded on the weſt, or inland ſide, by a line drawn from Cuddalore through Arnee, Velore, and Chittoor; and eaſtward by the ſea. The whole of this tract is a triangular ſpace of 106 G. miles in length, by 70 wide. By means alſo of Mr. Pringle's bearings and meaſured routes,

* The reader will find in my friend Mr. Marſden's very excellent hiſtory of Sumatra, an account of the SURF: a phenomenon which I do not recollect ever to have ſeen diſcuſſed in a philoſophical manner, in any former treatiſe. The account will be found in page 28, to 33.

† The term Jaghire means generally, a grant of land from a ſovereign to a ſubject, revokable at pleaſure; but generally for a life rent. The Jaghire in queſtion, is, I believe, underſtood to be held in perpetuity. It contains 2440 ſquare miles, and its revenue is reckoned at about 150,000l. per annum.

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the poſitions of Portonovo, Sautgud, and Amboor are obtained; which laſt may be conſidered as the weſtmoſt point determined with accuracy, any where to the north of Tritchinopoly: and Amboor is only one fourth of the whole diſtance acroſs the peninſula. I cannot find that the road to Colar, was meaſured, during the campaign of 1767.

Arcot is found to be nearer to Madras than was before ſuppoſed. I have fixed it by a ſeries of triangles, by means of Wandiwaſh, Narnaveram, and Sholingur hills; and a baſe, furniſhed by the Jaghire map; at 56,6 G. miles, in horizontal diſtance, from Madras; and about 13′ 30″ ſouth of its parallel; whence, its latitude will be 12° 51′ 30″, lon. 79° 28′ 15″. I do not know that its obſerved latitude is recorded any where. Mr. Pringle's map makes its diſtance from Madras 57,9; and M. D' Anville 58,2 in his MS. of poſitions: and another French MS. map, 59,1.

Arcot is reckoned the capital of the Carnatic; and muſt be a place of great antiquity, by its being taken notice of by Ptolemy, as the capital of the *Soræ*, or *Sora-mandalum*; from whence corruptly Choro-mandel. It is a pretty large city, and its citadel is eſteemed a place of ſome ſtrength, for an Indian fortreſs. The defence which it made under CLIVE, in 1751, eſtabliſhed the military fame of that illuſtrious nobleman; whoſe foibles expoſed him to the attacks of enemies, who were better qualified to obſerve his defects, than to imitate him in the higher parts of his character: to which poſterity will do ample juſtice, when it is placed beyond the reach of the envy of cotemporaries: and when his foibles will be as little remembered, as the malice of his enemies.

The poſition of Velore, is from Mr. Pringle's diſtance, corrected by the bearing of Sholangur hill. In his map of Coote's campaigns, he has given too much diſtance between Arcot and Velore: for it is 17 B. miles in the map, and only 15 by the road, in the tables. Alſo, between Conjeveram and Arcot, the road diſtance exceeds the

horizontal diſtance, by three-fourths of a mile only; in 26½ miles. Theſe, I apprehend, are miſtakes, occaſioned by haſte.

Velore is a poſt of great importance, commanding the great road leading into the Carnatic, from the valley of Vaniambaddy; and the directeſt route from the Myſore country. It conſiſts of three ſtrong forts, on as many hills: and is juſtly deemed impregnable to an Indian army. It is ſaid to have been originally fortified by the Mahrattas, more than 200 years ago. Among other acts of generalſhip exhibited by Sir Eye Coote, during the late war; the relief of this place, in the face of Hyder's whole army, may be reckoned a capital one. It is about 90 miles to the weſtward of Madras.

Paliconda, had its bearing taken from Velore, and the diſtance between them, was meaſured. Amboor is determined by the diſtance from Paliconda, and the bearing of Coulaſgur; which latter is determined by bearings from Velore and Arcot. The diſtances are obtained by means of Mr. Pringle's table of roads, with allowance for winding. Laſtly, Sautgud is placed by angles taken at Amboor and Velore.

Theſe, together with Col. Pearſe's line, along the eaſtern coaſt of the peninſula, and thoſe before taken notice of in the ſouthern provinces (in ſection I.) are all the meaſured lines that occur in theſe parts: together with one, and only one, obſervation of latitude; that is, at Chinna-Balabaram, about the middle between the two ſeas. This being the caſe, it will follow, that the various materials of which the geography of the tract in queſtion is compoſed, can be no otherwiſe arranged, than by eſtabliſhing as *primary ſtations*, ſuch places as we have the beſt *data* for; and which have the greateſt number of poſitions dependant on them: and this being done, to adapt the matter to the reſpective intervals, between theſe primary ſtations: which intervals muſt of courſe determine the ſcales and bearing lines of the ſeveral MS. maps, of which the materials are compoſed.

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I ſhall attempt only to give an account of the manner of determining the principal of theſe ſtations, or points of connexion; and that for the uſe of future geographers. To deſcribe the whole, would lead me into unneceſſary prolixity. The primary points which it became neceſſary to deſcribe, in the account of the ſea coaſt, were chiefly from actual meaſurement; as Tritchinopoly, Tanjore, Madura, Palicaudcherry: and I may now add, Coimbettore and Carroor; which are placed by meaſurement alſo. Arcot and Amboor, I have juſt mentioned; and Poliput and Chittoor, are the only remaining ones, that are eſtabliſhed by ſurvey.

Of thoſe that remain to be determined, by tireſome diſcuſſion, and compariſon; and in ſome caſes by mere judgment, founded perhaps, on doubtful teſtimony; are Bangalore, Trinomalee, Darampoury, Dalmacherry, Gooty, Calaſtri, Sami-Iſſuram, Innaconda, Combam, Adoni, and Timerycotta. And of thoſe furniſhed by Col. Pearſe's march, are Nellore, Ongole, and Siccacollum.

Bangalore, as the firſt mentioned, is alſo the moſt important; as being in the centre of the peninſula, and having routes paſſing through it, in every direction. It is in itſelf, a place of great political importance, being a fortreſs of ſtrength; and from ſituation, the bulwark of the Myſore country, towards Arcot. A variety of MS. maps of the country lying on the weſt of the Carnatic, and between it, and Seringapatam, have appeared: moſt of them, I believe, the offspring of the war of 1767-8, with Hyder Ally. One of a much later date, communicated by Mr. John Sulivan, contains the whole peninſula, ſouth of the parallel of 15°; and is particularly valuable, on account of its having many routes and ſituations in Myſore, and Bednore; as well as in Tanjore and Madura. By its comprehenſive nature, it furniſhes an opportunity of proportioning the reſpective diſtances between Amboor, Bangalore, Seringapatam, Mangalore, and Bednore; as theſe places all appear in the ſame map, together with the routes from one to the other. It would require whole ſheets to give an analyſis of this, and the reſt of the MSS. which

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have been conſulted on this ſubject, and therefore, I ſhall only ſtate generally, that by the medium of the diſtance from Amboor to Bangalore, in 4 maps, it comes out to be 73,6 G. miles; (the variations between them, was 6 miles) and its parallel, according to the ſame method of proceeding, was 4′ 10″ ſouth of Madras, or 13° 0′ 50″. To this may be added, that Chinna-Balabaram, is by the medium of the ſame 4 maps, 23′ 40″ to the north of the parallel of Bangalore: and the latitude of the former, which is fortunately preſerved in the *Lettres Edifiantes*, being 13° 23′, confirms the general accuracy of the former reſult: this being only 1′ 10″ different from it; or 12° 59′ 20″. Laſtly, the interval on Mr. Sulivan's map, between Bangalore and Bednore, is 176 G. miles; and in mine, when Bangalore is placed, as above (73,6 from Amboor; and in lat. 13°) 172,5. And again, the diſtance between Bangalore and Mangalore in Mr. Sulivan's map, is 176,5; and in mine, 169¼: that is, 7¼ different in one caſe, and 3½ in the other. And this difference is to be accounted for, by our giving a different degree of width to the peninſula: Mr. Sulivan's map making it 15′ 15″ wider than mine does, in the parallel we are ſpeaking of. I have placed Bangalore in lat. 13°, and lon. 77° 37′ 10″, according to the above *data:* and this capital point, or *primary ſtation*, being fixed with ſo much ſucceſs, both in latitude and longitude, gives ſome degree of confidence to all the poſitions round it: for almoſt every poſition between Col. Kelly's line on the ſouth, and the Tungebadra river on the north; has, in its conſtruction, a reference to Bangalore. It is the common point of union, in the centre of the peninſula, as Coimbettore is in the S W, and Tritchinopoly in the S E.

Before I proceed to the detail of the remaining primary ſtations, in the peninſula, I ſhall obſerve at once, that all the roads and poſitions of principal places in the Myſore and Bednore countries, on the weſt of Bangalore; and between Roydroog and the parallel of Tellicherry; were furniſhed by the ſaid map of Mr. Sulivan's: and

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of which, I believe, there is no other copy in Europe. . Chittel-droog, Shevagunga, Bankypour, Chennyroypatam, Ananpour, and many others, are quite new; and Sera, Sirripy, Roydroog, Rettin-gery, and Cenapatam, appear much more confiftent in their pofi-tions, than heretofore: and although we cannot expect that either the pofitive, or relative diftances, fhould be perfectly exact, yet I have every reafon to think that they are not far from the truth; and that at all events, the prefent map affords the beft materials that can be procured in this country.

Seringapatam is placed nearly in the pofition it occupies in Mr. Sulivan's map, in refpect both to Bangalore and Mangalore. Its parallel is very uncertain, as there is no good line of diftance, to check it, either from the north, or fouth. Mr. Sulivan's map places it 99 G. miles to the northward of Coimbettore; and Mr. Montrefor's 87,4. As I have adhered more to the account of its relative pofition, in refpect of Bangalore; it ftands in the map, only 91 from Coimbettore. Befides, a MS. Itinerary gives its diftance from Sera, at 3 days journey, or 54 G. miles horizontal diftance; which is perfectly confiftent with the 91 miles from Coimbettore. It is placed in lat. 12° 31′ 45″, lon. 76° 46′ 45″ *.

Sir George Staunton's journey acrofs the peninfula, from Madras to Mangalore, in 1783, as one of the commiffioners for negocia-ting a treaty of peace with Tippoo Sultan, furnifhed a lift of ftages, and the eftimated bearings and diftances between them, the whole way. Thefe, Sir George moft obligingly communicated to me, together with his mifcellaneous obfervations and reflections as he went along; and which, being written on the fpot, and difpatched as opportunities offered, may be allowed to exhibit a faithful pic-

* Other accounts are as follow: a large map, which I confider as the firft that was con-ftructed from the materials, collected during the war of 1767-8; and which may be ftyled the *parent* of moft of the others, that appear on different fcales; gives 99,3 G. miles, weft from Kiftnagheri; and 2′ north of its parallel. This would place Seringapatam 6′ weft of its pofi-tion, in the new map. Montrefor's map, gives 66 G. miles from Bangalore, and Mr. Suli-van's, 58½. The firft goes 9½ beyond it; the other only 2.

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ture of the mind that dictated them : and they afford a proof that a long journey in which many things occurred that usually excite disgust, disappointment, and chagrin (not to mention fatigues and want of comforts); may be performed, not only without disturbing the tranquillity of the traveller; but in such a state of mind, as to leave him a sufficient portion of good humour, to enable him to amuse others.

The commissions were conducted by a very circuitous route, as well as impeded in their journey: for after proceeding on the great road from Anicul towards Seringapatam, in a W S W direction, to Malavilly, within about 12 miles of Seringapatam; they were carried to the N, and N W, so as to leave the latter place, at least 25 miles to the southward of them. As far as these estimated bearings and distances enable me to judge, the positions of Anicul and Seringapatam, in the map, are too far to the west, by several miles, in respect of Caveripatam; the last point established in this route, with any degree of certainty. But the route is unfortunately, too crooked, to admit of its being applied as a corrective, in small errors of distance.

Seringapatam is the capital of Mysore, the dominions of Tippoo Sultan; and it is situated in an island of the Cauvery river, about 290 or 300 miles from Madras. It has little in it worthy of attention. Mysore, a town and fortified post, and as I understand, the ancient capital; lies about 8 miles to the southward of Seringapatam. Mr. William Townsend, of the East India Company's civil service, who travelled from Onore to Bednore, and Seringapatam, was 11 days in travelling between the two latter places; which, however, cannot be more than 180 or 190 miles asunder. He represents the whole country he travelled through, as being open and fruitful: nor did he meet with any mountains between the Gauts and Seringapatam.

Darempoury, Caveripatam, Kistnagheri, and Changamah, are obtained by means of a map of the valley of Vaniambaddy (or the Barra-

Barra-maul *) which map includes in general all the fortreſſes contained within the tract uſually known by that name. This map is in Mr. Dalrymple's collection, and has much the appearance of general accuracy; the number of forts placed on rocky eminences, in and about it, affording an eaſy means of determining the relative poſitions, by triangles. The contents of this map are joined on to Amboor, a *primary ſtation*; and I made no alteration whatever, in its ſcale or compaſs. Darempoury, the extreme point in this map, to the S W, being thus obtained, ſtands more ſouthwardly in reſpect of Arcot, than moſt other maps repreſent it: that is, the interval between Darempoury and Carroor, is leſs than is commonly reckoned; and that between Darempoury and Colar, leſs.

Cudapanattam and Vaniambaddy, were *ſet* from Amboor rock, and their diſtances taken from the MS. maps. The roads and places between Cudapanattam and Bangalore; as well as thoſe between this laſt place and Condour; and alſo between Bangalore and Darempoury; are taken from the 4 MS. maps, from whence I have inferred the poſition of Bangalore: and I conſider the places within this tract, to be aſcertained with much more preciſion, than thoſe on the ſouth of Darempoury; and between it and Carroor, and Coimbettore: it being a more confined ſpace, and alſo much oftener traverſed, during the war of 1767. But to recount the particulars, would be both tedious, and uſeleſs: as the account would contain nothing more than a compariſon of bearings and diſtances, and the mode of correcting, and working them up, into their preſent form: the labour of which, although compreſſed within the compaſs of a few inches, would ſcarcely be conceived, or believed. Although moſt, or all, of the roads that appear in the map, between Darampoury, Attore, Carroor, and Coimbettore, have been marched over,

* The name Barra-mahal, or Barra-maul, *anglice* the *twelve places*, was given it becauſe it contained 12 fortreſſes of ſome note, (viz.) Kiſtnagheri, Gegadivy, Candely, Congoonda, Vaniambady, Mahrauzegur, Cockingur, Cooturagur, Bazingur, Tripatore, Tadcull, and Gigangurry.

either by Britiſh armies, or their detachments, at different times; yet ſeldom having a ſurveyor with them, or by the want of inſtruments, or leiſure, or both; little has been done for geography, more than barely informing us that ſuch roads and places exiſt. So that the whole country beyond the firſt ridge of hills from Arcot, and ſouth of the Barra-maul, can be but vaguely deſcribed: no one point, as I before obſerved, having been mathematically determined, on the north of Carroor and Coimbettore: and was it not for the obſervation of latitude at Chinna-Balabaram, the poſition of Bangalore, and all the places dependant on it, would be involved in uncertainty.

The road from Seringapatam to Calicut, is from Col. Humberſtone's report: and that from Calicut to Damicotta, is from Jefferies's old map. Of that from Seringapatam to Coimbettore, I have ſeen ſeveral copies; among which there are variations both in the ſcales, and in the names. Col. Wood went from the Barra-maul to Damicotta, Sattimungulum, and Coimbettore, in the courſe of his campaign in 1767: but I know not on what authority the road from Damicotta to Myſore, is deſcribed.

The determination of the poſitions in that part of the ſouthern Carnatic, beyond the extent of Mr. Pringle's meaſured lines, was what intereſted me particularly: as from its vicinity to a principal ſettlement, and the ſcene of much warfare, it may be expected to be a ſubject of public curioſity. But even here, any more than on the farther ſide of the mountains, accuracy was not to be attained: for no poſition was determined mathematically, in the line between Tritchinopoly and Velore: nor even a ſingle line meaſured from the ſea to the hills, to determine the breadth of the Carnatic: nor even a ſeries of triangles, although ſuch a ſucceſſion of tempting marks occur, throughout this whole ſpace. The only particular that preſented itſelf, in the ſhape of actual meaſurement, was Mr. Pringle's route from Tritchinopoly to Velore: but this was without bearings, ſave from the top of Tiagar hill, about midway

between:

between: and which, from the greatnefs of the diftance, could take in only a part of the line; that is, from Volconda to Trinomaly.

Changamah, as has been faid before, is placed by the map of the Barra-maul, from the weft: and as Trinomaly in the Carnatic, is not only very near it, but alfo an eligible *primary ftation,* it appeared that if there was any tolerable authority for Trinomaly, the operation of fixing it, would at the fame time verify Changamah, in refpect to the eaftern coaft: which confidering the foundation on which it refted, appeared neceffary.

Trinomaly hill, which is vifible more than 40 G. miles, was found by trigonometrical procefs (that is, by an angle of interfection of 20 degrees, from the hills of Wandiwafh and Carumpaucum) to be 40 G. miles from the former, in the direction of W 28° S. I fhould not have been entirely fatisfied with this refult, had not the pofition thus pointed out, agreed nearly with the apparent fituation of Trinomaly, in refpect of Changamah. This is indeed given by Mr. Sulivan's map, at E 10 N, 13 G. miles; while the bearing of Collifpauk from Changamah is N E 20,7; and that of Trinomaly from Collifpauk, S 7 W, 12,6 G. miles. Now, as Mr. Pringle meafured that fide of the triangle between Trinomaly and Collifpauk, and found it only 11½ G. miles (or 15 B. miles in *road diftance*) the fide between Changamah and Trinomaly, ought to be only 10¾: and this I have adopted, with a fmall correction; as Mr. Pringle's bearing was S 12 W, inftead of S 7 W, as in Mr. Sulivan's map. Sir George Staunton, who travelled along that fide of the triangle, between Collifpauk and Changamah, eftimates the road diftance at 19 B. miles; which by this conftruction, ought to be 23 at leaft.

Trinomaly, thus adjufted, is 52 G. miles, on a bearing of about W N W, from Pondicherry (the neareft point on the coaft). M. D'Anville thought it no more than 48; and another French MS. map, which contains the fouthern Carnatic, and which has afforded

 me

me much aſſiſtance, only 43 G. miles: but the more modern maps, come nearer to my idea; Werſebe reckoning the diſtance 55, and Mr. Sulivan's map about 50. This ſtation determines the breadth of the ſouthern Carnatic; and alſo all the poſitions between Tritchinopoly and Velore. It will follow, alſo, that Tiagar, from whence the bearings of Volconda and Trinomaly were taken; as well as Volconda itſelf; muſt have an immediate dependence on Trinomaly. The poſition of Volconda, in reſpect of Tritchinopoly, would have been a deſireable thing, in order to find how it agreed with the poſition deduced from Trinomaly; but this I could get no good authority for: and Mr. Pringle's bearing ought to have more weight, than mere opinions. I have given the different accounts in a note, but without admitting them as authority *. M. D'Anville's, however, agrees with mine. Baron Werſebe's route, obligingly communicated by the Hon. Col. Cathcart, (his Majeſty's Quarter-maſter General in India) did not appear until the map was engraved. If Werſebe is right, I muſt have miſtaken the poſition of Volconda; and placed it 7 miles N W by W of its true poſition. But Mr. Dalrymple, alſo, took the angles on Tiagar hill, and made the angle of Trinomalee and Volconda, the ſame as Mr. Pringle did, to 3 minutes of a degree.

Gingee is placed 30, and 32½ G. miles from Pondicherry in 2 French MS. maps; and 36½ in Werſebe's: one might expect that the French knew its poſition well. I have placed it 33 from Pondicherry; and 23 from Trinomaly.

The reſt of the poſitions in the ſouth Carnatic, as well as the courſes of the rivers, and direction of the firſt ridge of hills, are taken chiefly from the 3 MS. maps beforementioned (viz.) D'Anville's, the old French MS. map; and Werſebe's: and ſome few

* Bearing of Volconda from Tritchinpoly, by D'Anville, N 3[illegible]° E
By the other French MS. map N 36° 30′ E
By Werſebe - - N 25 15 E
By Montreſor - - N 28 40 E
It ſtands in the map - N 37 E

parti-

particulars are from an engraved French map of 1771; whose principal merit is confined to the southern part of the Carnatic.

Carnatic-Gur, and Doby-Gur, two fortresses of note, in the ridge of hills on the west of Arnee, have never been taken notice of, in any former map. The latter is determined, as to distance from Velore, by a measured route of Mr. Pringle's: and the former had its bearing taken at Velore, and is known to bear about N by W, 3 miles distant, from the latter: of course, two sides and an angle are given; and the two places mutually assist in determining each others position.

The Coleroone and Cauvery rivers, with their branches, below Caroor, are taken from the maps of Wersebe and Kelly; collated with the old French map. Wersebe's map of Tanjore, contains more particulars than any other that I have seen; especially in the northern part. And for the southern parts, I had some assistance from the map of Mr. Sulivan.

More particulars appear in the Marawar and Madura countries, than in any former map that has been published. After the great roads specified in the discussion of Kelly's map, &c. most of the new matter is from Mr. Dalrymple's collection; and the rest from Wersebe and Sulivan. The almost incredible number of forts and fortresses of various kinds in the Carnatic, occasion a greater number of interesting positions within the same space, than in most other countries. Villages, and even towns, in open countries, are but of a day, compared with fortresses; especially when they derive any portion of strength from their situation; a very common case, here. Public monuments, too, the unequivocal mark of civilization and opulence, are more common here, than in the northern parts of India.

Madura and Tinevelly are chiefly from Col. Call's old map, with many additions from Kelly and Wersebe. The valley of Ootampaliam, inclosed between the branches of the Gauts, is a very recent acquisition to geography. Nor is this the only new matter af-

forded us by Col. Fullarton's march (during the late war) into the ſouthern provinces; the geography of which now wears an entire new face. The intention of this expedition was, to open a communication between the two coaſts of Coromandel and Malabar; and at the ſame time to deprive Hyder Ally of the uſe of the valuable province of Coimbettore: and, if neceſſary, to open a ready way into that of Myſore. We learn from him, what will appear a new fact to moſt readers, that of there being a break in the continuity of the ridge of mountains named the *Gauts*, oppoſite to Paniany. Governor Hornby it ſeems was appriſed of this circumſtance; and probably it was formerly known in Europe, though now forgotten. This *break* is about 16 miles wide, and appears to border on what D'Anville calls *Annamally*, or the *elephant mountains*; and is occupied chiefly by a foreſt of timber trees, which has the fort of Annamally on the eaſt, and Palicaudcherry on the weſt. The valley or opening extends 14 or 15 miles, between the termination of the northern Gauts, and the commencement of the ſouthern ones; before it opens finally into the low country on the Malabar coaſt. It is well known that ſhips which navigate the Malabar coaſt, during the N E monſoon, commonly experience a ſtronger gale in the neighbourhood of Paniany, than elſewhere; and I am of opinion that this opening in the Gauts, is a very ſufficient cauſe for ſuch an effect. I have been told alſo, that the lower part of the Coimbettore country, partakes of the rainy, or S W monſoon, of the Malabar coaſt: which may certainly be referred to the ſame cauſe.

The river of Paniany takes its courſe from the Coimbettore country, through this opening; and is ſaid to be navigable in the rainy ſeaſon, for ſmall boats, to the foot of the Gauts; which is a circumſtance worthy of being known, and which I was ignorant of, until I read the life of Hyder Ally, publiſhed in France, in 1784. This circumſtance, together with the inundated ſtate of the country at that ſeaſon, may ſerve to ſhew, that the country

weſt

west of the Gauts, has no great declivity, in a course of near 60 miles.

The Paniany river, as well as that of Daraporum, has its source, from an elevated plain, of about 60 miles in extent; and which stretches itself across the eastern mouth of the gap or valley, before spoken of. This plain rises suddenly from the level of the surrounding country, like a vast terrace; and the forest bounds it on the west. There are examples of the same kind of elevated plains in Bengal; and in the Bundela country, south of the Ganges, near Soohagee Gaut.

The common boundaries of the Carnatic, and of Mysore, are tolerably well ascertained in the southern provinces *; and an approximation towards the truth, is made, in those of the Marawars and Tanjore; but on the north of the Cauvery, I believe the boundaries are very ill defined, even by the governing powers themselves; except in particular places.

On the west of the Gauts, and between those mountains and the lakes of Cochin and Travancore, there is nothing new. The country is chiefly one vast forest: and of course, scarcely inhabited, or known, as to particulars.

Terriore, or Tarriore, a fort possessed by a Rajah of some note, on the north side of the Cauvery, and at the foot of the first ridge of hills; has its position from the authority of the MS. maps abovementioned. They differ, in giving its distance from Tritchinoly, from $22\frac{1}{2}$ to $25\frac{3}{4}$ G. miles: and from Ootatore, from 16 to $17\frac{1}{4}$.

Attore, a considerable post on the west of Tiagar, I found some difficulty in placing, from the discordancy of the different accounts: and indeed, the whole tract beyond the first ridge of mountains beyond the Carnatic, is very vaguely described, both in point of particulars,

* Meaning those on the south of the Cauvery river. And the countries between the Cauvery and Guntoor, are here named *The Carnatic*, in a particular sense: and this is again subdivided into N and S as the parts respect Madras.

ticulars, and of geometrical exactneſs. With reſpect to Attore, which is the centre of ſeveral roads deſcribed in the map, I have placed it chiefly on the authority of Mr. Sulivan's map; as it correſponds with the bearing of the mouth of the paſs, from Tiagar; as reported by Mr. Pringle. That bearing was W 13° 11′ S; and in Mr. Sulivan's map, it ſtands N 38 W, diſtant 28¼ G. miles from Volconda. It is placed in the map N 39 W, 28½ miles: 32½ from Darampoury; and 34 from Salem *.

A route of Baron Werſebe's, from Tritchinopoly to Tiagar; communicated by my friend Col. Cathcart, came to hand after the map was engraved; and therefore too late to enable me to correct Ootatore; whoſe poſition, by that gentleman's account, is more northwardly, in reſpect of Tritchinopoly, than I have placed it. The route in queſtion was not meaſured, but it being very ſtraight, there could be no difficulty in aſcertaining the true bearing of it.

The principal ſettlements and commercial factories of the Europeans, in the peninſula, are all ſituated along the coaſt of the ſouth Carnatic; or, as it is uſually termed, the coaſt of Coromandel. Madras we have already ſpoken of: the Engliſh poſſeſs alſo the fortreſs and city of Negapatam, ſituated on the coaſt of Tanjore; and taken from the Dutch in the late war. It is a neat city, and a place of conſiderable trade: but more valuable from its local poſition.

Pondicherry is the principal ſettlement of the French in the Indian ſeas. Its general poſition has been diſcuſſed in page 13; and with reſpect to Madras, it lies to the ſouth, diſtant 100 road miles; and at the mouth of the Gingee river. It was firſt ſettled by the French in 1674; and was then included in the Rajaſhip of Gingee, ſubject to the King of Narſinga. Previous to the war of 1756,

* As it may aſſiſt ſome other perſon, who may undertake to correct this geography, I have inſerted the following particulars, collected from different authorities: Mr. Sulivan's map places Attore, S 40° 30′ W, 31 G. miles from Darempoury; and E 10° 20′ N, 29½ from Salem. D'Anville's map of poſitions, N 37° 40′ W, 24½ from Volconda. And Montreſor, E 42° 50′ S, 18 from Darempoury.

Pondi-

Pondicherry was, perhaps, the fineſt city in India. It extended along the ſea coaſt about a mile and quarter, and was about three quarters of a mile in breadth: was well built, and contained many public buildings; and a citadel, then the beſt of its kind in India, but of too contracted dimenſions. This fine city was firſt taken by the Engliſh, in 1761; and was immediately razed to the ground, in retaliation of M. Lally's conduct towards the fortifications and buildings of Fort St. David, in 1758. This proceeding of M. Lally, was agreeable to a ſyſtem adopted by the French Eaſt India Company, in Europe: and which had its foundation in commercial jealouſy *. However, the conſequent deſtruction of the French ſettlement of Chandernagore, might have glutted our revenge for the loſs of Fort St. David: and we ſhould have been content with diſmantling Pondicherry. The French have alſo factories at Cuddalore, and at Carrical: the former within ſight of Pondicherry; the latter in the Tanjore country. Cuddalore is naturally a very ſtrong ſituation; and would have been the moſt commodious, perhaps, for the chief Britiſh ſettlement; ſince the ſecurity of Tanjore, and the conveniency of ſupplies from it, muſt ever be a capital object. Beſides, as the S W monſoon is the ſeaſon of naval warfare, Pondicherry has the advantage of being to windward of Madras; and the French, at the ſame inſtant, accompliſh the double purpoſe of keeping to windward, and of protecting their capital ſettlement: and receive aſſiſtance from it in return. The Britiſh fleet, in order to watch the enemy, retires 100 miles from their principal ſettlement; and receives only a precarious aſſiſtance from the ſhore: that is, from Cuddalore, or its neighbourhood, their uſual ſtation.

The Dutch poſſeſs on this coaſt the towns of Pullicate, Sadras, and Portonovo; each of which has a ſmall fort to protect it, againſt the conſequences of any deſultory irruption, or the quarrels of petty

* If we are to judge of the degree of turpitude of a crime, by the mode of puniſhing it, rivalſhip in commerce ſhould be one of the moſt heinous crimes in nature: for nothing leſs than the moſt flagitious, and univerſal criminality, can authorize the deſtruction of the habitations, and the conſequent diſperſion of the inhabitants, of a great city. The fate of Rome might be involved in the exiſtence of Carthage: but the queſtion here, was only which of the two parties ſhould purchaſe callicoes as the cheapeſt rate, or ſell them at the deareſt.

Chiefs:

Chiefs: but which could make no ſtand againſt a regular army. The Danes have alſo a ſettlement of the ſame kind, at Tranquebar, within the confines of Tanjore.

For an account of the cities of Tritchinopoly, Tanjore, Madura, and the ſtupendous pagodas of Seringham, &c. I ſhall refer the reader to Mr. Orme's elegant and faithful hiſtory of the military tranſactions of the Britiſh nation in Hindooſtan.

When we turn to the north of the parallel of Madras, the ſubject appears to be more barren of matter, of every kind, than in the ſouth: and among the little that does appear, there is a ſtill ſmaller proportion of actual ſurvey. The Jaghire map, and the marches ſurveyed by Mr. Pringle, do not extend far to the north of Madras. There is indeed, Col. Pearſe's line of march, northward: but this furniſhes only an outline; for it never deviates far from the coaſt. The matter before us, is confined chiefly to the eaſtern half of the peninſula; and the farther we recede from the coaſt, the more ſcanty are the materials, and the leſs to be depended on.

The authorities for the courſe of the Kiſtna river, which bounds on the north, the tract which is the ſubject of this ſection, will be found at the end of the fourth ſection: and I ſhall now proceed to give an account of the authorities on which the remaining primary ſtations, between the parallel of Madras, and the Kiſtna, are founded.

On Dalmacherry and Gooty, depend the whole courſe of the Pennar river, from its ſource to Cuddapa; together with all its branches, and the different poſitions near them; ſuch as Cuddapa, Tripetty, Chandeghere (or Kandeghere) and Calaſtri.

There is a diverſity of opinion concerning the poſition of Dalmacherry, as there muſt ever be, when the diſtance and bearing of a place, have not been mathematically aſcertained. A curious MS. communicated by my friend General Caillaud, entitled, "*An account of the Paſſes between the parallels of Udeghery and Sautgud,*" and from which I have received great aſſiſtance, has the diſtances

in

in computed miles from one paſs to another, and oftentimes from ſome diſtant capital place alſo; but without bearings. This MS. gives the diſtance of Dalmacherry, at 75 Britiſh miles of road diſtance, or about 56 G. miles of horizontal diſtance, from Arcot. Montreſor's map gives 64, and Mr. Sulivan's 61½. Montreſor, alſo, places it 47½, in a N N E direction from Cudapanattum; and Mr. Sulivan 47. I have placed it 56½ from Arcot, in a N N W direction; which makes the interval between it, and Cudapanattum, 46½; and its latitude is 13° 43′ 30″. There are three important paſſes leading from this place, into the Myſore and Cuddapah countries: and here it was that Doaſt Ally, the Nabob of Arcot, was ſurpriſed and defeated by the Mahrattas, in 1740.

Gooty or Gutti, is a ſtrong fortreſs on a hill, beyond the river Pennar *, and towards Adoni; and formerly the ſeat of government of Morari Row, a Mahratta Prince. This place, together with the courſe of the Pennar, is found in Montreſor's map; which contains more particulars in this part of it, than any other map I have ſeen. But a difficulty aroſe in adjuſting the poſition of Gooty, in my map; becauſe the diſtance between Dalmacherry and Chinna-Balabaram is much leſs in *it* (13 miles) than in Montreſor's; and Gooty appears to be aſcertained by two lines, drawn from thoſe places: ſo that either the bearings, or the diſtances, muſt be rejected. I thought it the ſafeſt way to adhere to the diſtances: as it is probable they might have more weight, than the bearings had, with Mr. Montreſor, who adjuſted this circuitous route, between Arcot and the head of the Pennar. His ſcale gives 112,2 G. miles, on a bearing of N 3 E, from Chinna-Balabaram to Gooty; and 118,5, N 43° 45′ W, from Dalmacherry to the ſame place. The interſection of the bearings (which make an angle of about 40°) would place Gooty in lat. 14° 58′: and that of the diſtances, in

* Or Pen-aur. I believe the term *aur*, for river, which prevails generally throughout the Carnatic, is not found any further to the north than Nellore.

15° 15′; and nearly in the meridian of Chinna-Balabaram. I have preferred the latter, for the reaſon abovementioned.

The inferior branches of the Pennar are taken from D'Anville's map of 1752: but Tademeri, Anantpour, &c. are from the Univerſal Hiſtory. Gandicotta, on the ſouth bank of the Pennar, is remarkable both as a ſtrong fortreſs, and for having a diamond mine near it: a particular account of it, will be found in Tavernier. Penuconda a conſiderable place near the Pennar river, is ſaid to be 20 leagues N E of Sirpy, and 20 N N W of Chinna-Balabaram. This account, alſo, is in the Modern Univerſal Hiſtory. Cæſar Frederick mentions it as the retreat of the King of Biſnagar (or Narſinga) 8 days journey from Biſnagar.

The Pennar river, after ſpringing from the neighbourhood of the Balabarams, runs directly northward, until it approaches Gooty; and then takes a S E courſe by Gandicotta and Cuddapah: after which it changes to the eaſt, and reaches the ſea at Gangapatnam, after paſſing the fort of Nellore. The MS. account of the Paſſes, remarks that this river is 300 yards wide at Sami-Iſſuram, about 70 miles from the ſea; although it is confined in its courſe, by hills, on both ſides.

It has been obſerved in the firſt ſection, that Capt. Ritchie's chart of the coaſt of Coromandel, made the point at the Pennar river, project too far out. I find by a reference to 6 different MS. and printed maps of this part, that the diſtance of the ſea from Nellore, is not repreſented in any of them, at more than 13½ G. miles, and moſt of them allow only 12. And although I have allowed 16, it comes conſiderably within Mr. Ritchie's account.

Cuddapah is determined by the map of the Pennar river: and the conſtruction agrees with its reputed diſtance from Arcot in a *Malabar* map; or rather a map drawn by a native of the Carnatic. It is there ſtated at 60 coſſes; which on the ſcale adopted for the Carnatic (in page 5) and which allows only 37½ coſſes to a degree, will correſpond with the 96 G. miles, ariſing on the conſtruction.

Tripetty

Tripetty and Chandeghere (or Kandegheri) the firſt a famous place of Hindoo worſhip; and the latter, the ſite of the capital of the ancient kingdom of Narſinga, are placed with reference to Dalmacherry, by Montreſor's map; and by the MS. account of the Paſſes. Kandegheri is there ſaid to be 22 B. miles (road meaſure) from Dalmacherry, bearing about E N E; and Tripetty is 3 miles S E from Kandegheri. I have placed Tripetty accordingly: and it ſtands in the map 53½ G. miles, nearly north, from Arcot; and about 66, nearly N W by W, from Madras. Mr. Orme ſuppoſed it to be 50 miles N E of Arcot: and the Univerſal Hiſtory ſays it is 22 leagues W N W from Madras.

Calaſtri appears alſo in the map of Montreſor. There is alſo a route of General Caillaud's from Polypet to Udegheri, and Nellore, paſſing through Calaſtri. I have endeavoured to fix the poſition of Calaſtri, by theſe joint authorities; and have placed it 15 G. miles E N E from Tripetty; and 61 from Arcot: but I have my doubts concerning the accurary of its poſition.

Sami-Iſſuram paſs, on the Pennar river, is reckoned in the MS. of the Paſſes, 55 B. miles, or 44 G. miles horizontal diſtance, weſt from Nellore: and this poſition is corroborated by Montreſor's map (as far as the apparent rudeneſs of his materials for this part, may be ſaid to confirm any poſition) and I have placed it accordingly. It comes within about 15 G. miles, or 9½ coſſes of Cuddapah; which bears from it W S W.

Udegherri and Sangam, two places in General Caillaud's route, are corrected by Col. Pearſe's poſition of Nellore; and by the relative poſitions of Sydaporum and Nellore, in a French copy of M. Buſſy's marches: Sydaporum being alſo a poſition in Mr. Caillaud's route. I am conſcious how incomplete the northern part of the Carnatic is, in compariſon with the ſouthern part: but all my enquiries have produced nothing ſatisfactory, on the N W of Polipet. Had the route of General Caillaud been meaſured, it would

have produced ſeveral *primary ſtations:* but as it is, the ſcale appears to be ill proportioned in the different parts of it.

Narnaveram and Bomrauzepollam, are both placed on the authority of Mr. Pringle's obſervations: and the Pullicate lake is from the Jaghire map; Col. Pearſe's route; and other authorities. This lake, called by D'Anville, *Ericans*, ſeems to owe its exiſtence to the ſame cauſe as the Chilka lake; that is, to the ſea's breaking through a low ſandy beach, and overflowing the lands within; for its communications with the ſea, are extremely narrow, like the *embouchures* of ſmall rivers. This lake is in extent 33 B. miles from N to S, and 11 over, in the broadeſt part; and contains ſome large iſlands within it. One of theſe is named Ircum, in Mr. Barnard's map of the Jaghire, publiſhed by Mr. Dalrymple: and as M. D'Anville names this iſland, as well as the lake, *Ericans*, I conclude it to be a corruption, or miſconception of *Ircum*.

I have not found it an eaſy taſk to fix the poſitions either of Innaconda, Combam, Adoni, or Canoul. On theſe four places, many others depend, in the conſtruction of the map; and they are neither of them aſcertained to my ſatisfaction. There is, in particular, a degree of obſcurity in the accounts of Canoul, that I cannot clear up. My local information fails me entirely, in this place: and this kind of knowledge is ſo requiſite to a geographer, that no degree of ſtudy, or inveſtigation, can compenſate for the want of it. It not only enables him to reconcile names and ſituations; but oftentimes furniſhes him with a criterion to diſtinguiſh the value of his materials. Few Europeans, vagrant ones excepted, have viſited theſe places ſince the time of M. Buſſy (1751) and it is a misfortune to geography, that his marches between Arcot, Hydrabad, Adoni, Canoul, and Seringapatam, have not been recorded, in the ſame intelligent manner, as the reſt of his marches have been; and from whence we have drawn ſo much information. But, however I may repine, as a geographer; I ought, perhaps, as a philoſopher, to be ſatisfied, that ſo much has been preſerved.

Inna-

Innaconda (called alſo Viniconda, and Huiniconda) is a fortreſs on a hill; within, or bordering on, the Guntoor circar. It is undetermined, as to its preciſe bearing, from any known place: therefore I have been reduced to take it on the authority of ſome vague maps, and by a reference to circumſtances: and have placed it about N W by N from Ongole (a point in Col. Pearſe's route). Mr. Pringle meaſured the road, and found the diſtance to be 46½ B. miles; for which I allow 36 G. miles, in horizontal diſtance. By the *Malabar* map, it is 28 coſſes, which may be reckoned about 45 G. miles. It is ſomewhat more weſterly in bearing, and alſo more diſtant, from Medipilli, than from Ongole.

Combam is reckoned 25 coſſes from Innaconda; and 32 from Ongole; or about 51 G. miles from the latter. It is placed in the map, at 48 miles diſtant, and nearly weſt, from Ongole: but as its parallel is regulated by the aſſumed poſition of Innaconda, it is ſubject, of courſe, to the ſame errors. Tavernier's route from Gandicotta to Maſherlaw, paſſed through Combam, (which he calls Kaman) and its poſition accords very well, with the proportion of diſtance aſſigned it. More will be ſaid on this ſubject, hereafter.

Adoni is reckoned to be 66 coſſes from Combam, by the Malabar map; and 67 by a route tranſmitted by Col. Harper to the Madras Government; and which was collected from the information of his guides, while at Innaconda, in 1781. Theſe coſſes on the Carnatic ſcale (37½ to a degree) are equal to 106 G. miles; and this is the diſtance allowed in the conſtruction, between Combam and Adoni, weſtward. And for its parallel, no better authority can be found, than its diſtance from Gooty, which is ſituated to the S E of it, two days journey, or 36 G. miles according to my calculation; which is founded on ſome conſiderable degree of experience in theſe matters. Adoni, thus placed, is 63 G. miles N N E from Roydroog, and about 44 ſouth of the Kiſtna river.

Adoni,

Adoni, as to general poſition, is about the middle of the peninſula, and exactly in the parallel of Goa. It was, not many years ago, a fine city, and extremely well fortified, ſituated on the ſide of one of the branches of the Tungebadra * river; and the capital of a ſmall principality, or rather feudatory province, of Golconda. A part of its hiſtory will be found in Mr. Orme's works. It was ſince aſſigned, together with Rachore, and Guntoor, to the late Bazalet-Jung, brother to Nizam Ally, the reigning Soubah of the Deccan. Hyder's deſperate graſp fixed on this, as well as the reſt of the provinces on the ſouth of the Kiſtna, previous to the late war: but all of them were, or ought to have been, reſtored by the peace of 1782. Adoni certainly was: becauſe the attack of Adoni, then in the hands of the Nizam, was one of Tippoo's exploits, laſt year.

The poſition of Canoul appears the moſt uncertain of all. The authorities for it, are, the Malabar map, in which its diſtance from Rachore, Cuddapah, Adoni, and Combam, are given in coſſes; but the interſections of theſe from the different points, do not agree. The map alluded to, is not conſtructed by a ſcale, but rudely ſketched out without much proportion being obſerved either in the bearings, or diſtances of places, from each other: and the names, and the diſtances between the ſtages, are written in the Malabar language. Canoul is there ſaid to be 57 coſſes from Cuddapah; 38 from Combam; 28 from Rachore; and the ſame from Adoni: and 36 from Timapet, a place that occurs in General Joſeph Smith's route from Hydrabad to Sollapour. By this account, the number of coſſes between Cuddapah and Rachore will be 85; which is really the diſtance on the map, within 2 coſſes; reckoning 37½ to a degree. Nor are the croſs diſtances from Com-

* I ſuppoſe the termination *badra* in the name of this river, means the ſame as the *budda* or *buddar* in Nerbudda, and Soanbudda; in the north part of the Deccan, and in Hindooſtan. If the ſuppoſition be true, that the names of large rivers undergo little alteration, the language to which *Gonga* or *Gang* belonged, muſt have had a wide range: ſince we find it applied both in Ceylon, and at the foot of mount Himmaleh.

bam, and from Adoni, far out; but that from Timapet is irreconcileable. However, as the poſition of it agrees pretty well with Cuddapah, Rachore, and Combam, it may be concluded that the diſtance of Timapet is falſely given. In a map of M. Buſſy's ſouthern marches, ſaid to be compoſed by M. D'Anville; Canoul is repreſented in a very different poſition from the above reſult: for there it ſtands only 18 coſſes from Rachore, inſtead of 28.

Condanore is 15 coſſes to the eaſt of Adoni, according to Col. Harper's route.

Rachore, or Adoni-Rachore, a city, on or near the ſouth bank of the Kiſtna river, and not far above the conflux of the Tungebadra with it, and below that of the Beemah has its poſition from the map of M. Buſſy's northern marches.

Rachore is four days journey from Adoni, according to the report of an European who travelled it. This perſon came from Seringapatam, by way of Sera and Gooty, to Adoni; and communicated this, and ſeveral other particulars in his itinerary, to Mr. W. Townſend; who obligingly gave them to me. It is reckoned three days journey from Seringapatam to Sera (or Merki-Seray) ſix more to Gooty; two from thence to Adoni; and four more to Rachour. If we take the whole diſtance through theſe ſeveral points on the map, the produce will be 276 G. miles. A days journey for an ordinary traveller, may be fixed at 22 Britiſh miles, in road diſtance; which reduced to horizontal, will be about 18 G. miles: and it will be found that the 276 miles will be nearly 15 days journey, at that rate: and the intervals are generally well proportioned. Although 22 miles are ſtated to be a days journey for an ordinary traveller; yet a coſſid or courier goes ordinarily from 30 to 33 Britiſh miles in a day: and that for many days together.

Timerycotta, a conſiderable fort in the Palnaud country (which is a diſtrict belonging to the Carnatic, but ſituated towards the Kiſtna river, on the weſt of Guntoor) governs moſt of the poſitions in Guntoor and Palnaud; as alſo the croſſing place of the Kiſtna, in the

the road from Madras to Hydrabad. In Montreſor's map, there are a number of places round Timerycotta; but they have no connexion with any other known place. Capt. Davis, in his account of the places in and about the Guntoor circar, ſays that Timerycotta is 40 coſſes weſt from Guntoor fort: and Guntoor is placed by the Malabar map 9 coſſes from Sattinagram; a place on the ſouth bank of the Kiſtna, oppoſite Bezoara; a point aſcertained by Major Stevens. The bearing of Guntoor from Sattinagram, we can only infer, from its lying in the direct road to Ongole, to be about S W: but it is ſtrongly corroborated by Montreſor's map, which gives the diſtance between Guntoor and Siccacollum (another fixed point on the Kiſtna) at about 25½ G. miles. Timerycotta, then, is placed according to theſe *data*, in reſpect of longitude: and is 89 G. miles to the weſtward of Siccacollum; or 64 from Guntoor, which anſwers to 40 Carnatic coſſes. With reſpect to its parallel, the Malabar map gives only a circuitous route of 49 coſſes to it from Ongole. Mr. Montreſor's map makes the diſtance to be 66 G. miles from Ongole; and the bearing about N W by N: but, as I ſaid before, the connexion between theſe places is imperfect, in his map. Capt. Davis's map (or rather ſketch) has it at 57. Again, Montreſor makes Guntoor and Timerycotta, nearly under the ſame parallel, which would reduce the diſtance to 59. I have allowed 60½: and have been guided principally by the computed diſtances in the Malabar map, applied to Capt. Davis's bearings, in his circuitous route from Ongole to Timerycotta: and this poſition agrees nearly with Montreſor's idea.

Montreſor's map, as is ſaid before, contains many poſitions round Timerycotta, to the extent of 20 or 30 miles: among others, Currumpoody, Patack, Pongallah, Pulredygur, and Maſherlaw or Macherla. This laſt place, together with Combam and Doupad, from other authorities, helps me to trace out the route of Tavernier from Gandicotta to the Kiſtna, in his way to Golconda, in 1652. Combam or Commum, is the ſame with his *Kaman*, ſaid

to

to be the frontier town of the Carnatic, towards Golconda. Deopad, is what he calls Doupar; ſituated, according to his account, in a country that is interſected by many torrents from the neighbouring hills. Col. Harper makes the ſame remark on Doupad or Deopad: and theſe torrents help to form the river Gondegama (or Gondlacomma) which gains the ſea at Medipilly, and is the nominal boundary of the Carnatic. The Malabar map writes it *Gilligama*, and other accounts give it *Gunta-camma:* Gondegama, is the common name. Combam is ſituated near its ſource. Tripanty pagoda lay near Tavernier's route, and is a few miles to the north of Doupad. Some have confounded this with *Tripetty*, a more celebrated pagoda in the vicinity of Chandeghere; and 160 miles to the ſouthward of Tripanty. Tavernier's next ſtage is *Mamli*; which may be recogniſed in D'Anville's map of Coromandel, under the name of *Mamenda*. His Macheli, is, no doubt, Maſherlaw: ſoon after which he arrived at a large river; which was the Kiſtna. It is ſingular that his curioſity ſhould not have led him to enquire the name of the moſt capital river, that occurred during his journey.

Tavernier's route would hardly be worth remarking, did not his diſtances help to corroborate generally, the poſitions of Combam and Timerycotta. He reckons 77 *leagues* from Gandicotta to Maſherlaw: 42 of which are between Gandicotta and Combam. Theſe leagues, I apprehend, are meant for coſſes, a common error of Tavernier's: and it is remarkable that Thevenot falls into an abſurdity of the ſame kind, by reckoning coſſes for half leagues. How men of ſenſe and reflection can apply the names of the itinerary meaſures of their own country, to thoſe of another, when the ſcale differs ſo widely, I confeſs I am at a loſs to account. Coſſes and leagues, differ at leaſt a third part, in their length: how then can Thevenot ſay, that a coſs is equal only to half a league? Tavernier's whole number of leagues from Gandicotta to Golconda, is 119; and the real diſtance, through the points of Combam, and

E e Maſher-

Maſherlaw, only 176 G. miles: it will follow then, that nothing more than coſſes could be meant, and thoſe rather ſhort, than otherwiſe. Between the Kiſtna and Golconda, his account gives 39 leagues or coſſes, which interval is 60 G. miles, by my conſtruction. There muſt, however, be an error in the diſtance between Maſherlaw and the Kiſtna, which he reckons only 3 leagues, or coſſes; whereas, it cannot be leſs than 7 coſſes.

The fort of Condavir is the principal poſt in the Guntoor circar; and is ſtrongly ſituated on a mountain, 8 coſſes to the weſt of Guntoor, according to Capt. Davis; and 10 from the ſouth bank of the Kiſtna. The poſition of Mongelgary, I am not ſatisfied about, as there are great contradictions in the accounts of it. Colour is from D'Anville: it is a diamond mine on the ſouthern bank of the Kiſtna, and not far from Condavir. Chintapilly and the roads in Guntoor, are from Capt. Davis's ſketch, and the Malabar map.

I could get no better authority for the road from Nellore to Hydrabad, than what appears in D'Anville's Coromandel, publiſhed in 1753. I have altered the proportion of its parts, by changing the place of Podalah (his Poudela) as it is known to be 12 coſſes, nearly W by N from Ongole, inſtead of the northern poſition he has given it; for want of ſuch a check as I was enabled to apply, by being in poſſeſſion of a route acroſs, from Ongole to Combam. It is very extraordinary, conſidering the long intercourſe that the Engliſh at Madras, have with Hydrabad, that there ſhould be nothing better of the kind, on record.

The road from Udegherri to Ongole, is alſo from D'Anville.

Sanore-Bancapour is from M. Buſſy's march, as has already been obſerved, in the fourth ſection, page 171. Sanore and Bancapour, are two forts, lying about 3 coſſes from each other; at 120 G. miles, nearly eaſt from Goa. Mr. Ewart procured (while at Nagpour) a route from Hydrabad to Sanore-Bancapour, and from thence to Chinaputtun, a city, with a fort of ſtone; and ſituated 37 coſſes beyond Bancapour. There is nothing to guide the judgment

ment in determining the general bearing of it, further than that we may conclude it to be to the weſtward of Sanore-Bancapour, becauſe the road from Hydrabad, leads through it; and as the Sanore river (the Toom) was croſſed 9 coſſes beyond Bancapour, it may probably bear to the northward of weſt from it, as the rivers in that part, run to the ſouthward of eaſt (ſee the map). The diſtance between Hydrabad and Bancapour (133 coſſes) determines the ſcale of coſſes to be at the rate of 39½ to a degree; ſo that Chinnaputtun is about 56½ G. miles from Sanore-Bancapour; moſt probably, in a W N W direction. We learn one intereſting particular, if true, from this route; which is, that the Nizam's territories extend 31 coſſes beyond Bancapour.

Biſnagur, or Bijinagur, the capital of the ancient kingdom of Narſinga, is ſituated near the weſtern bank of the Tungebadra river, and about 30 miles S E or S S E from Bancapour. It was viſited by Cæſar Frederick in 1567; and was then a very large city. He reckons it 8 days journey from Goa, which, by the calculation in page 207, ſhould be 144 G. miles; but it is only 130 by conſtruction. We are told by Feriſhta, that Bijinagur was founded by Belaldeo, King of the Carnatic, in 1344. The Carnatic then, included the whole peninſula; or at leaſt, all that lay to the eaſt of the Gauts. Our hiſtories of the Deccan and Carnatic are very imperfect; and at this day we can hardly diſtinguiſh between the kingdoms of Biſnagur and Narſinga; and whether they were two ſucceſſive, or two coexiſting kingdoms. It appears probable, however, that in the 16th century, the kingdom of Biſnagur included the greateſt part of the peninſula; and that on the invaſion of the King of Viſiapour, and other northern Princes of the Deccan, the King of Biſnagur retired, firſt to Penuconda and then to Kandighery (or Chandegheri) but ſtill preſerved his ancient title of Biſnagur. In 1599, Kandegheri was the reſidence of a Hindoo King, whoſe dominion extended over Tanjore and Madura; and

in 1640, a deſcendant of this Prince reigned there: and permitted the Engliſh to ſettle at Madras.

Ranni-Bedalore, as well as the heads of the Tongebadra river, are from M. D'Anville. We know generally, that this river is formed out of ſeveral ſmaller ones, that iſſue from the eaſtern ſide of the Gauts, in and about the Bednore country. Further down, it paſſes Biſnagar (as is ſaid above, although Cæſar Frederick calls the river of Biſnagar, Nigonden) and between that and the Kiſtna, it receives the Hindenny, or Endri river, which paſſes by Adoni; as well as ſeveral ſmaller rivers. The general courſe of the Tungebadra is repreſented in the map of M. Buſſy's northern marches: and that of the Hindenny is marked more particularly, in the map of his ſouthern marches, by D'Anville. It is alſo deſcribed in the map communicated by Mr. Sulivan, as paſſing under Chitteldroog, Rydroog, Chitrigally, &c.

M. Buſſy's route from Seringapatam to Adoni and Rachore is not to be found in the map of his other marches. Thoſe who caſt their eyes on that naked part of the map, will regret its being wanting.

The route from Goa to Galgala is from Mr. Dalrymple's collection; and appears to have been travelled by ſome Portugueſe, who viſited Aurungzebe's camp on the Kiſtna, in the latter part of the laſt century; or early in the preſent.

The environs of Goa and the country to the foot of the Gauts, are from a Portugueſe MS. It is from Goa only, if from any quarter, that we are to expect the geography of the tract between the Gauts, Viſiapour, and Adoni; and which yet remains almoſt a perfect void, in the map.

The general courſes of the rivers in the peninſula, indicate that a ridge of high land runs directly acroſs it, from Calaſtri to Mangalore: but if we are to truſt report, the country has not a hilly appearance between the Gauts and Bangalore; but that riſing ſuddenly

denly from the weſt, at the Gauts, it declines gradually eaſt-ward: ſo that the Gauts form a ſort of a terrace on an immenſe ſcale.

The Gauts are marked only in certain places where the different roads croſs them, or where they have been viewed from the coaſt. This famous Appenine, which marks, with more preciſion, perhaps, than any other boundary whatever, the line of ſummer and winter, or rather of dry and wet; extends 13 degrees of latitude; that is, from Cape Comòrin to Surat (with the exception of the gap mentioned in page 196) at unequal diſtances from the coaſt: ſeldom more than 70 miles, and commonly about 40: and within one ſhort ſpace only, it approaches within ſix miles. Although the altitude of theſe mountains is unknown, yet it is ſufficiently great to prevent the great body of clouds from paſſing over them; and accordingly, the alternate N E and S W winds (called the monſoons) occaſion a rainy ſeaſon on one ſide of the mountains only; that is on the windward ſide. It would appear, though, that clouds enough do paſs over, to occaſion a rainy ſeaſon, at a conſiderable diſtance to leeward, where thoſe clouds deſcend: as we may ſuppoſe them to do, although at the time they paſſed over the Gauts, they muſt neceſſarily have been too high, and of courſe too light, to condenſe and fall in rain, there. This, I am led to conſider, by Lieut. Ewart's account of the weather at Nagpour, in the very centre of India; where the ſeaſons differ but little from their uſual courſe in Bengal, and on the weſtern ſide of India: that is, the S W monſoon occaſions a rainy ſeaſon: but the rains are not ſo violent, nor of ſuch long continuance, as in thoſe places. At the mouth of the Godavery river and its neighbourhood, the S W monſoon occaſions a rainy ſeaſon alſo; and the Godavery is then ſwoln and overflows: and this part is about as far to leeward of the Gauts, as Nagpour is. It is poſſible, however, that the clouds which

which occaſion a rainy ſeaſon at the mouth of the Godavery, may come from the eaſt of Cape Comorin: though I rather believe the contrary, as the Cape bears S S W from it, and the reigning winds are much more weſterly. The Nagpour clouds, however, muſt paſs over the Gauts. We may, I think, conclude then, that the ridge of the Gauts ſhelter a particular tract only; beyond which, the light and elevated clouds that paſs over it, deſcend in rain. Madras is within the limits of the ſheltered tract, though at leaſt 300 miles to leeward of the Gauts: Rajamundry (near the mouth of the Godavery) and Nagpour, may be about 500. It would be curious to know the exact limit of wet and dry. If I miſtake not, until lately it was a general opinion, that the Gauts extended from the northern (or Bootan) mountains to Cape Comorin; and occaſioned a diverſity of ſeaſons, at one and the ſame time, throughout all India. But the truth is, that different ſeaſons exiſt at the ſame moment, only in a part of the peninſula: for the cauſe ceaſes in the parallel of Surat; where the S W wind, no longer oppoſed by a wall of mountains, carries its ſupplies of moiſture uninterruptedly, both far and near, over the whole face of the country. For ſome particulars reſpecting the northern extremity of the Gauts, ſee page 179.

As the peninſula, or tract diſcuſſed in this ſection, contains more intereſting matter than could well be compriſed within the ſpace furniſhed by ſuch a ſcale, as could conveniently be applied to a general map, of ſo large a tract as India; it was judged neceſſary to form another map of the peninſula, on a much larger ſcale: but an accident has retarded the publication. Thoſe who may hereafter become poſſeſſed of it, will find the account of its conſtruction in this Memoir: which is common to both maps, throughout this whole ſection; and alſo in the firſt ſection, as far as the map of the peninſula is concerned. The ſcale of this map, is juſt double that of the general one.

SECTION VI.

The Countries between HINDOOSTAN *and* CHINA.

IT has been ſaid before (page 48) that the firſt ridge of mountains towards Thibet and Bootan, form the limits of the ſurvey to the north: to which I may now add, that the ſurveys extend no farther eaſtward, than to the frontiers of Aſſam and Meckſey.

The Jeſuit's map of China, as given in Du Halde, places the weſtern boundary of Yunan (the weſtmoſt of the provinces of China) between the 97th and 98th degrees of eaſt longitude, in the parallel of 24°: ſo that the eaſtern frontier of Bengal (Silhet) is within 350 Britiſh miles of the weſtern part of China; or to ſpeak comparatively, the ſame diſtance as Silhet is from Calcutta. Here one is apt to wonder, that conſidering their proximity to each other, there ſhould be no communication between the two countries. The reaſons probably are, that Yunan does not produce ſuch manufactures as are in requeſt among foreigners; and that the courſes of the great navigable rivers in thoſe parts, are unfavourable to a communication by water. The ſpace between Bengal and China, is occupied by the province of Meckley, and other diſtricts, ſubject to the King of Burmah, or Ava.

The river *Nou-Kian*, little, if at all, inferior to the Ganges, runs to the ſouth, through that angle of Yunan which approaches neareſt to Bengal; where the Jeſuits, who formed the map of China, left it, in its courſe to the ſouth-weſt. This river, M. D'Anville conceived to be the ſame with that of Pegu; in like manner

as

as he ſuppoſed the Sanpoo to be the Ava river: but ſucceeding accounts have left no doubt remaining, that the Nou-Kian is the river of Ava. In the Modern Univerſal Hiſtory (Vol. VI, p. 205) is an account of a voyage performed on this river, by four Chineſe, about the middle of the laſt century. They went from Yunan to Yuntchian, and from thence to the frontiers of Ava; where they embarked, and went down the ſtream to Ava city.

In my account of the conſtruction of the ſea coaſts (page 39) my authorities for deſcribing the *delta* of the Ava river from the ſea to the parallel of 18°, are given. The Dutch MS. map there quoted, deſcribes the whole courſe of the river, as high up as the city of Ava itſelf, which it places in latitude 21° 48′; and alſo ſays in a note "*by obſervation*:" and indeed, the whole ſcale of the map ſeems to be formed from the difference of latitude.

The difference of longitude, as inferred from this Dutch map, places Ava in 97°. But Capt. George Baker, of whoſe accuracy I entertain a high opinion, took the bearings, and eſtimated the diſtances, the whole way from Negrais to Ava; and the reſult, corrected by the obſervation at Ava, 21° 48′, gives the longitude 97° 45′: and this longitude I have adopted. Capt. Baker's eſtimation of the courſes and diſtances between Negrais and Ava, placed the latter in lon. 97° 54′, lat. 22° 5′; or 17′ to the north of the obſervation, recorded in the Dutch map. This error, on a diſtance of about 400 miles, is trifling; being leſs than a 20th part *. Ava

* Leſt the particulars from whence the river of Ava &c. is conſtructed, ſhould be loſt, I have recorded them here.

From Negrais to Perſaim	NNE 45 G. miles.	Camma to Meachagong	N by E 20 G. miles.
Pryggee -	NNE 45	Mellone -	NNE 35
Head of Negrais river	NE 60	Raynangong -	NNE 35
Lundſey - -	N 35	Sallumea - -	N 25
Saladun -	NNW 25	Youngeve -	NE by N 25
Prone - -	NE 18	Ava - -	ENE 70
Camma -	N by E 15	Monchaboo -	N 45

The whole traverſe gives a courſe of N 27° 30′ E, diſtance 408 G. miles. The diſtance corrected, is 389.

The Dutch map gives a bearing of N 35° 50′ W, diſtance 80,3 miles, between Syrian river Point (meaning the point of conflux of the Syrian and Dogon rivers) and the head of Negrais river; the upper point of the delta.

ſtands

ſtands in the old maps, in lat. 25° 20′, lon. 96° 36′. The particulars of the courſe of the river, I have taken from the Dutch map; as Capt. Baker deſcribes only the general direction of it.

Monchaboo, a city, and the reſidence of the King of Burmah, or Ava, in 1755, is by Capt. Baker's account, 38½ G. miles north from Ava: and this was the extreme point of his travels that way.

The Nou-Kian is named Irabatty by the people of Ava; and is ſaid by them, to be navigable from the city of Ava, into Yunan. Monchaboo being within 130 B. miles of the Chineſe frontier, we want only ſo much, to complete the courſe of the river in the map. This break is there deſcribed by dotted lines.

Capt. Baker deſcribes the country bordering on the Ava river, from the ſea to Lundſey, as being very flat, and the ſoil rich; and, I ſuppoſe, like that at the lower parts of the courſes of the Ganges, Indus, and other capital rivers, formed out of the mud depoſited by the inundations of the river. This low tract is named Pegu, and formed an independent kingdom in 1754, when it was reduced by the King of Burmah, to the ſtate of a dependent province.

Burmah borders on Pegu to the north, and occupies both banks of the river, as far as the frontiers of China. On the north-weſt is Meckley, which we have before taken notice of: and on the weſt Aracan (or Reccan) and Roſhaan. On the eaſt, it has the kingdom or country of Upper Siam; which, Capt. Baker informs us, begins at a ſmall diſtance eaſtward from the city of Ava: a ridge of mountains ſeparating it from Burmah and Pegu.

The King of Burmah, whoſe reputed capital is Ava, and from whence the whole kingdom, though erroneouſly, is often denominated, is ſaid to poſſeſs not only the country of Meckley, in addition to thoſe of Pegu and Burmah; but alſo the whole tract which lies on the north of it, between China, Thibet, and Aſſam. Du Halde's map ſpeaks poſitively, as to this point, but with what

truth I know not, as I have never been able to gain any information on the ſubject.

Capt. Baker informs us, that the country of Burmah, adjacent to the banks of the Irabattey, or Ava river, between Pegu and Monchaboo, is in ſome places hilly, and in others flat; but not ſo low as to ſuffer inundations. Its produce is, in moſt reſpects, nearly the ſame as that of the countries contiguous to the Ganges; and, it is remarkable, that the lands which produce the greateſt quantity of ſaltpetre, are much about the ſame diſtance from the ſea, as thoſe of the ſame nature on the ſide of the Ganges.

Mr. Vereſt, who meditated an expedition into Meckley from Bengal, and actually advanced as far as Coſpour on his way to it, in 1763; was informed by his Meckley guides, that after paſſing the firſt ridge of mountains beyond Cachar, he would find a fertile and well inhabited country all the way to Ava. He, however, went no farther than Coſpour; but the particulars of the road between that place and Ava, are deſcribed from the intelligence furniſhed by the guides who attended him.

The country of Burmah produces ſome of the beſt Teek timber in India. The foreſts which produce this moſt uſeful and valuable article, are ſituated between the weſtern bank of the Ava river, and the country of Aracan; and are only 250 miles from the ſea, by the courſe of the river.

The Sanpoo, or Thibet river, was ſuppoſed by M. D'Anville to be the ſame with that which is called, in the lower part of its courſe, the river of Ava: but we have not the leaſt doubt at preſent, of its being the ſame with the Burrampooter, which enters Bengal on the north-eaſt, and joins the Ganges near the ſea. I traced it in 1765, to about 400 miles above the conflux; that is, as high as the latitude of 26°, longitude 91°; where the Bengal diſtricts end, and thoſe of Aſſam begin: but I was not permitted to go any higher. However, ſome few Europeans, engaged in the Goalparah trade, and among others, M. Chevalier, the late Governor of

of Chandernagore, by permiſſion of the King, went as high up as the capital of Aſſam, about the year 1762: but was under a conſiderable degree of reſtraint, with reſpect to making remarks, either on the courſe of the river, or on the country. As M. Chevalier, however, went on a very large embarkation, we are convinced that the river is navigable for large boats, through a ſpace about equal to the diſtance of Buxar from the ſea; that is, between 600 and 700 miles. It may probably be navigable much higher up; though its navigable courſe cannot be equal to that of the Ganges; this flowing chiefly through a level country, and the Burrampooter through a mountainous one.

I have placed the capital of Aſſam, Ghergong, (or Kirganu) 160 G. miles nearly E by N from Goalparah, according to the report of the Aſſamers. They alſo informed me, that the Burrampooter has a very long courſe previous to its entering Aſſam; and that it comes from the N W through the Thibet mountains. Now the Lama's map of Thibet in Du Halde, deſcribes the courſe of the Sanpoo, to within 120 G. miles of the aſſumed ſituation of the capital of Aſſam: and ſtill nearer to ſome parts of the Burrampooter that are known, and have been deſcribed by the Aſſamers.

Theſe facts, together with thoſe reſpecting the Ava river and Nou-Kian, eſtabliſh (I think) the ſtrongeſt preſumptive proof poſſible, of the Sanpoo and Burrampooter being one and the ſame river, under different names: and poſitive proof can never be obtained, but by actually tracing them; a circumſtance unlikely ever to happen to any Europeans, or their dependants. The interval between the known part of the Sanpoo, and that of the Burrampooter, is deſcribed in the map by dotted lines. The Ayin Acbaree ſays that the Burrampooter comes from Khatai: meaning China. We muſt not forget that the ſame book ſays, that the ſource of the Ganges had never been traced, at that time.

Some difficulty ariſes in fixing the poſition of Laſſa, the capital of Great Thibet. We have the hiſtory of the Lamas' map in

 Du Halde,

Du Halde, which is not altogether favourable to its character; eſpecially in the parts towards the ſource of the Sanpoo and Ganges. A cloſe examination of its particulars, turns out ſtill more unfavourable to it. For inſtance, the place where the Ganges enters the plains of Hindooſtan, is placed under the 28th degree of latitude; though it is known by our late obſervations, to be in about 30°. With reſpect to the longitude, we have no grounds, on which to form an exact compariſon; but we may conclude generally, that the diſtance between Laſſa and Hurdwar is near 2 degrees of longitude leſs than it ought to be: I mean, provided that Laſſa be near its true poſition with reſpect to Pekin, in the Lamas' map. The difference of longitude between them is 24° 17′; Laſſa being placed 91° 40′ eaſt from Greenwich.

With reſpect to Hurdwar, the proof is poſitive of its being 2 degrees farther to the ſouth than it ought to be; and this furniſhes a ſtrong preſumptive one, that all the weſtern parts of the map, are faulty in the ſame proportion: and that the ſources of the Ganges and Sanpoo, inſtead of being between the 29th and 30th degrees of latitude; are ſeveral degrees further to the north; and probably between the 32nd and 34th: of which more will be ſaid in the ſequel. Nor am I ſingular in this opinion; for M. D'Anville found it neceſſary to make an alteration of 2 degrees in latitude; and to adopt the very longitude, which I have ſuggeſted. And I ſhould be wanting in candour, and in reſpect to his memory, ſhould I forbear to do juſtice to his nice diſcernment, in placing the entry of the Ganges into Hindooſtan, by inference from Delhi, almoſt in the very ſpot where I have now placed it, by actual ſurvey.

But M. D'Anville, ignorant of the reſpective poſitions of Bengal and Laſſa, adopted the latitude of the latter place, given in the Lamas' chart: that is to ſay, about 29° 35′. Father Giorgi (Vide Alphabetum Thibetanum) ſays, the latitude of Laſſa is "about

30

30 degrees and a half;" and by what follows, it can hardly be in a lower parallel.

The late Mr. George Bogle, who was ſent by the Governor of Bengal (Mr. HASTINGS) on an embaſſy to the Grand Lama of Thibet in 1774, travelled by way of Coos-Beyhar, Taſſaſudon, and Paridrong, to Chanmanning, the then reſidence of the Lama, and nearly in the ſame parallel of latitude with Laſſa. Unfortunately, very little geographical information was furniſhed by this journey; unleſs the bare account of the number of days he was on the road between the two laſt places, may be deemed ſuch. However, this information, ſuch as it is, joined with other circumſtances, helps to aſſure us that Laſſa is farther to the north, than the Lama's map repreſents it: for Taſſaſudon, the capital of Bootan, is by the accounts of the Bootanners, about 46 G. miles horizontal diſtance from Luckiduar, in a direction nearly north; and Luckiduar being in 26° 56′, Taſſaſudon cannot be in leſs than 27° 43′. Paridrong (called Paridſong in the Lamas' map) is a conſiderable way beyond that, and may be ſuppoſed to be in 28 degrees at leaſt: but the Lamas' map places it in 27°; making an error of a whole degree of latitude. This place and the chain of mountains near it, have been regarded as the common boundary between Thibet and Bengal: but Mr. Bogle has cleared up this matter, by aſſuring us that Paridrong is the frontier town of Thibet towards Bootan, and not towards Bengal. And we have before aſcertained that Bootan occupies an interval of at leaſt a degree of latitude between Bengal and Thibet. Thibet and Bootan, are often confounded together: the latter is a feudatory or dependency of the former, and borders on Bengal.

Thus, I flatter myſelf, this diſcuſſion reſpecting the ſituation of Paridrong, joined to the information of P. Giorgi, will convince the reader, that the latitude of Laſſa, if not perfectly right in my map is, at leaſt, nearer the truth than it has uſually been repreſented. Its longitude is taken from the Lamas' map, in which it is reckoned

24°

24.° 17′ weſt from Pekin, or 91° 40′ eaſt from London. Had the bearings and latitudes of Mr. Bogle's route been taken, we ſhould not only have been able to determine the poſition of Laſſa, with ſome degree of accuracy (as the direction of the road is ſo much to the north) but alſo moſt of the intermediate places. Mr. Bogle was ſixteen days on the road from Paridrong to Chanmanning. The diſtance aſſigned between theſe places in the Lamas' map, is about 167 G. miles of horizontal diſtance: it is about 10 more on the map.

The ſouthernmoſt ridge of the Bootan mountains, riſes near a mile and half perpendicular, above the plains of Bengal, in a horizontal diſtance of only 15 miles; and from the ſummit, the aſtoniſhed traveller looks back on the plains, as on an extenſive ocean beneath him. There are not many paſſes through this ridge, and all are fortified. The fort of Dellamcotta, which commands the principal paſs, was taken by ſtorm in 1773, by a detachment under the command of Capt. John Jones; and the fame of this exploit made the Thibetians ſue for peace; and was the immediate occaſion of Mr. Bogle's embaſſy. The road between Bengal and Taſſaſudon, lies chiefly over the ſummits of ſtupendous mountains, or along the borders of craggy precipices; ſo that the direct diſtance is not eaſily aſcertained, even by the moſt intelligent traveller.

Between Taſſaſudon and Paridrong, is a chain of mountains ſtill higher than the other. They are viſible from the plains of Bengal, at the diſtance of 150 miles, and are commonly covered with ſnow. Theſe are a continuation of the mountains *Emodus* and *Paropamiſus* of the ancients; and are ſometimes by the moderns erroneouſly called *Caucaſus*. In the Lamas' map, they are called Rimola: and by the people of Hindooſtan *Himmaleh* (ſee page 96). I take it for granted that Himola or Himmaleh ought to be ſubſtituted for Rimolah, in Du Halde's map. I ſuppoſe them to be in point of elevation equal to any of the mountains of the old hemiſphere. Indeed, the country of Thibet is, altogether, one of the higheſt in

Aſia; it being a part of that elevated tract which gives riſe not only to the rivers of India and China, but to thoſe alſo of Siberia and Tartary: for if we examine the map of Aſia, we ſhall find that moſt of thoſe capital rivers riſe between the 31ſt and 47th degrees of latitude, and between the 70th and 97th degrees of longitude; from whence they run in every direction to the ſea, as the Rhine, Rhone, Danube, and Po, do from the Alps in Europe.

Father Giorgi, whom I have mentioned before, has given us in his *Alphabetum Thibetanum*, an itinerary between Calcutta and Laſſa. The diſtances he eſtimates in miles, which he probably meant for Italian, although they agree nearly with Engliſh ones. For he reckons 284 between Coſſimbuzar and Patna, which is the exact number of meaſured ſtatute miles between the two places. And between Singhya and Maiſſy, he reckoned 40, for 37 meaſured ones. We may therefore conclude that he was equally fortunate in proportioning the reſt of his diſtances; although the roughneſs of the road will not always admit of forming any juſt proportion between the diſtance by the road, and the horizontal diſtance. We are almoſt entirely in the dark as to the particular direction of his courſe.

Catmandu, the capital of Napaul, is placed according to the authority of ſome MS. maps made by ſome miſſionaries who travelled from Bettyah to that place: and I found no material diſagreement between their accounts and Giorgi's. I have therefore placed Catmandu 105 G. miles nearly north from Maiſſy, that is, in latitude 28° 6′.

From Catmandu to Laſſa, Giorgi reckons 504 miles by the road; but it muſt be obſerved that he omits to mention the diſtances of two ſtages between Khanſa and Meſcinzungh: and as the preceding ones were of 14 and 16 miles, and the two ſucceeding ones 16 each, I may venture to add 32 miles for the two omiſſions; and then the whole diſtance will be 536 B. miles, or 462 G. ones.

The

The horizontal diſtance between Catmandu and Laſſa (the latter being placed as deſcribed in page 221) is 364 G. miles: ſo that according to Giorgi's diſtance, one mile in five, will be taken up by the windings of the road: and this is not improbable, conſidering the mountainous nature of the country; for in the flat countries of Hindooſtan, the proportion is oftentimes 1 in 7.

The territories of Napaul extend to the mountains of Rimola, as they are called in the Lamas' map. Giorgi does not give the modern name of them; but juſtly concludes that the ancient one was Emodus. Theſe are a continuation of the chain between Taſſaſudon and Paridrong. Between Catmundu and theſe mountains, he paſſed by a famous place of worſhip, called by him *Nogliocot*, but by the Bengaleſe, Nogarcot; and which gives name to a paſs that leads to it through the Bootan mountains, on the north of Purneah. (There is alſo a famous place of worſhip of nearly the ſame name in the mountains of Lahore.) He alſo croſſed the upper part of the *Koſs*, or Coſa river, which takes its courſe through Purneah, to the Ganges.

Tankia, or Tinkia-ling, is a fortreſs and town ſituated at the hither foot of Mount Langur, a ſecond ridge of ſtupendous mountains, ſituated about 50 miles beyond Mount Rimola; and ſaid to abound with ſuffocating exhalations, which increaſe as you aſcend; but are weakeſt when the mountains are covered with ſnow. Tankia is the firſt place in Giorgi's itinerary, that can be recogniſed in the Lamas' map: for Nialma on the Nitchou river (probably the *Nohotha* of Giorgi) does not agree with any of Giorgi's names, although its ſituation does with Catmandu; which, however, the Thibetians call Jangbu.

About 25 miles beyond Mount Langur, is the beautiful valley of Tingri, ſaid to be 50 miles in length, though but narrow. It is deſcribed by Giorgi as an earthly paradiſe, in every reſpect ſave the ſharpneſs of the air.

The

The next place of note is Zuenga, or Tzuenga, a caſtle or fortreſs on the river Bontſu (ſuppoſed by Giorgi to be the *Bantiſo* of Ptolemy) and about 90 B. miles from Tankia. From hence two roads lead to Laſſa: the northernmoſt by Sgigatche (or Jiecſee as it is called in the Lamas' map) and Rimbu; the other, and which was travelled by Giorgi, is by Kiangſee, or Tchiantſe. He ſpeaks of wild horſes variouſly ſpotted, in great numbers on the banks of the Bontſu. Theſe, I preſume, are of the kind that are annually brought for ſale into Hindooſtan, where they are known by the name of *Tanyans*; and are of a hardy breed.

Kiangſe is repreſented as a fine city and fortreſs; with a convent near it, which is ſo very extenſive and magnificent, that it has the appearance of another city.

About 50 miles beyond Kiangſe, and 3 days journey ſhort of Laſſa, is the famous lake Palte, called by the natives Jamdro, or Jangſo. It is of ſo great extent, that according to the report of the natives, it requires eighteen days to walk round it. In the Lamas' map, however, the circumference is only 150 Britiſh miles. In the middle of it, there are, according to Giorgi, a continued range of hillocks and iſlands; or, according to the Lamas' map, one large iſland, incircled by a lake from 3 to 8 miles wide. On the weſtern ſhore of this iſland, or congeries of iſlands, is a monaſtery, and the ſeat of the *Lamiſſa* * *Turcepamo*, or *The Great Regenerate:* in whom the Thibetians think that a divine ſpirit is regenerated, as in the Great Lama. The road from Kiangſe to Laſſa lies along the north ſide of this lake, a day and half's journey.

Between the lake and the river Sanpoo, which is about 12 miles, another very high ridge of mountains croſſes the road. This ridge is named Kambala, and from the top of it may be ſeen towards the north, a range of ſtill higher mountains, covered with ſnow.

* Lama ſignifies a Prieſt, or Miniſter of Religion; and Lamiſſa is the feminine of Lama.

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The river Sanpoo *, or, according to Giorgi, *Tzangciu*, or *Tzanga*, is 7 miles from the foot of Mount Kambala; and is crossed in the way to Lassa, about 12 miles farther on, either over a bridge, or in a boat. The bridge, as well as most others in this country, is composed of iron chains stretched from side to side, with planks or logs laid across them.

Giorgi says that the chains are composed of 500 links, each a foot long †. We may conclude that the bridge is laid over the narrowest part they could find, which, by this account, is 160 English yards in breadth; otherwise we might expect a larger body of water in a river that had ran at least 7 or 800 miles; and had received into its bed, so great a number of streams. I compute that at this crossing place, the Sanpoo (which is afterwards called the Burrampooter) has as far to run to meet the sea, as the Ganges has at its first entry on the plains of Hindoostan; that is, about 1350 B. miles.

The city of Lassa is, by the road, about 24 miles to the north-eastward of the crossing place of the Sanpoo; and is situated in a spacious plain. It is not considered as a large city; but the houses are of stone, and are spacious and lofty. The mountain of Putala, which contains on its summit the palace of the grand Lama, the High Priest and Sovereign of Thibet, is about 7 miles on the east of the city.

Much confusion arises from the application of so many different names to this capital of Thibet. Giorgi tells us, that the proper name of it, in the language of Thibet is Baronthala; but that the Tartars call it Lassa, or Lahassa. Other accounts call it Tonker; and apply the names Lassa and Baronthala to the district which contains Tonker and Putala. And again others give the name of Putala instead of Lassa, to the capital of Thibet. But we ought to apply the name Lassa, or Lahassa, to the capital; and to consider

* Sanpoo, in the language of Thibet, means *The River*.
† I take it for granted that he means Italian feet.

Putala

Putala as the caſtle and palace of the Lama, and his ordinary place of reſidence.

By Thibet, or more properly Great Thibet, we are to underſtand all that vaſt country extending from the ſources of the Indus to the borders of China; and from Hindooſtan, to the great deſert of Cobi, northward; though we have but a faint idea of its extent towards that quarter. Its length from eaſt to weſt cannot be leſs than 1600 Britiſh miles: its breadth is very unequal. We are informed generally that it is divided into three parts; that is, Upper, Middle, and Lower Thibet. The upper diviſion ſeems to reſpect the countries towards the ſources of the Ganges and Sanpoo rivers: the middle, that in which Laſſa is ſituated, and of which it forms the centre: and the Lower Thibet, that which borders on China. But the ſubject is obſcure, and likely to remain ſo. I am not informed, whether or not the country called Little Thibet is ſubject to Laſſa: this is ſituated betweeen Upper Thibet and Caſhgur.

Conſidering the exceeding rough and ſterile ſtate of the country of Thibet, and the ſeverity of its climate, from its wonderful elevation, we are aſtoniſhed to find its inhabitants in a high ſtate of civilization; their houſes lofty and built of ſtone; and the uſeful manufactures in ſome degree of improvement. All theſe advantages they probably owe to their vicinity to the Chineſe; to whom, indeed, the Lama is tributary. For an account of Thibet, ſee Aſtley's Collection, Vol. IV.; Phil. Tranſ. Vol. LXVIII.; and the Alphabetum Thibetanum.

With reſpect to the heads of the Ganges and Sanpoo rivers, although they were viſited by the Lamas or prieſts, ſent by the Emperor CAMHI, whoſe laudable curioſity led him to add theſe particulars to the geography of Thibet; yet we are far from being well informed, concerning the true poſitions of theſe celebrated fountains. A late publication by M. Bernoulli (who has done me too much honour in the courſe of it) contains among a variety of other matter, a map of the courſes of the Ganges and Gogra rivers;

drawn by M. Anquetil du Perron, from the materials of the late P. Tiefentaller. This map is highly intereſting, on the ſcore of its containing the courſe of the Ganges, as high up as the *Gangotri*, or cavern, ſtyled by the Hindoos, the cow's mouth; and which is near 300 miles above the place where the Ganges enters Hindooſtan: as well as the courſe of the Gogra river, to its ſource, in the weſtern part of Thibet. Unfortunately, no obſervations appear to have been made for the purpoſe of determining the latitudes of either of theſe places: which, on a courſe approaching to meridional, would have furniſhed a rule for correcting the diſtances: thoſe remaining quite problematical, from the circumſtance of the route's being very crooked, and paſſing through a very mountainous country; to which the ſcale of computed coſſes cannot be applied, with any degree of certainty. What is yet more againſt the latter part of the performance (the Gogra river) is, that P. Tiefentaller did not viſit the ſource of it, himſelf, as he did the Gangotri; but ſtopt ſhort at a place not far within the Kemaoon mountains, and took the account of the upper part of its courſe, from a *native* (of Hindooſtan we may preſume). The names of places, and remarks, are written in the Perſic character, and tranſlated (it appears) by M. Anquetil du Perron.

But notwithſtanding any imperfections that may be imputed to the materials, or want of judgment in determining the ſcale, this map conveys much intelligence reſpecting the heads of the Ganges and Burrampooter rivers, as well as that of the Gogra; if we employ the lights furniſhed by Du Halde, in his map of the heads of the Ganges and Sanpoo, to illuſtrate the ſubject before us. Let us proceed to the examination of it, without any regard to nicety of ſcale.

The Gogra or Soorjew river, then, is traced into a lake named *Lanke-Dhe*; which has immediately on the eaſt of it, but without communicating with it, a much larger lake, named *Manſaroar*; out of which proceed two rivers, the one to the weſt, or N W, the

the other to the eaſt, or S E. Both of theſe lakes are ſaid to be ſituated within Thibet; as indeed ſome of the villages on the bank of the Gogra, much farther to the ſouthward, are. By the conſtruction of M. Anquetil's map, the ſite of theſe lakes is carried as high up as the latitude of 36°: however, by an analyſis of the ſcale, they can hardly be higher than $33\frac{1}{4}^\circ$; as will be preſently ſhewn. Now, in the Lamas' map of Thibet, the heads of the Ganges and Sanpoo rivers (which laſt, is called the Burrampooter, in the lower part of its courſe) are ſeparated only by a ridge of mountains, named Kentaiſſe. The head of the Ganges is compoſed of two ſtreams, which run weſtward; and the ſouthmoſt of theſe branches runs through two lakes, of which the firſt is named *Mapana*, and the ſecond *Lanken*. Theſe lakes are placed in reſpect of each other, as Tiefentaller's are; and the names of the correſponding ones, are Lanke in one, and Lanken in the other account: and *Manſaroar*, and *Mapana*. The names of the latter have certainly no affinity with each other; but the ſimilitude in point of ſituation, remains. The river that runs from the Lanken lake in Du Halde, is named Lank-tſhou: and that from the Lanke lake of Tiefentaller, is the Gogra. With regard to the two rivers that iſſue from the Manſaroar lake of Tiefentaller, that which runs to the weſt is ſaid to be the Satloudj (Setlege) a river that has been noticed in page 83, as the eaſternmoſt of the five Panjab rivers. This particular, however, the author himſelf diſcredits, and very juſtly: and the reader by turning to the map of the heads of the Indus, &c. at page 102, may ſatisfy himſelf as to the probability of it. In my opinion, this is the ſouthernmoſt of the two heads of the Ganges, above noticed; and which is known to run by Dſaprong, or (Chaparang) a conſiderable city not a very great way to the weſtward of theſe lakes (vide Lama's map in Du Halde, or D'Anville's map of Aſia). If it be objected that the Ganges is too famous a river to eſcape the notice of the people who knew the Burrampooter, at its ſource; I anſwer, that I do by no means believe that the people

in

in Thibet know the Burrampooter, by any other name than that of Sanpoo; and that the word Burrampooter is an interpolation. Indeed the writing in the map, imports only, "it is ſaid that the Burrampooter, &c." and the tranſlation of the Perſic writing, at the efflux of this eaſtern river, gives a very different idea; being "*Grand Riviere qui va du côte de Neipal*" (or Napaul). It is clear, however, that the people have an idea, that the weſtern river has a very long courſe. I ſcruple not to believe, that the Lanke lake of Tieſentaller, is the Lanken of Du Halde; and that the Manſaroar of one, is alſo the Mapana of the other: and that the circumſtances relating to the effluxes of the rivers, which appear to contradict each other, have not been carefully examined into, either by one, or the other party. As the Manſaroar lake is ſaid to be 60 *milles Indiens* (which ought to mean coſſes) in circumference, that is, 115 B. miles; we can hardly ſuppoſe that the native who furniſhed the account, made the tour of it, either to meaſure its extent, or to explore the heads of the rivers: and on the other hand, the Lamas ſent by CAMHI, might take a great deal of their account on truſt. Therefore without contending about the exact circumſtances of the caſe, I have deſcribed the Ganges (that is, the ſouthern branch of it) as iſſuing out of the lake Manſaroar: but have not regarded the eaſtern river as the Burrampooter, or Sanpoo; becauſe it would be doing too much violence to the account given by the Lamas; which deſcribes the Sanpoo as iſſuing from the eaſtern ſide of Mount Kentaiſſe, and at leaſt 40 miles from theſe lakes. Beſides, the Lamas give an account of a third lake named Conghé, which intervenes between the Manſaroar lake, and the head of the Sanpoo. If I am miſtaken in my conjectures, I cannot miſlead others, while the map is accompanied with this diſcuſſion. The Lamas' map which appears in Du Halde, places the head of the Ganges in latitude 29½°; and M. D'Anville found it neceſſary to remove it almoſt as high as 32°. In the preſent map, it ſtands in 33¼°: all which may ſerve to ſhew how vague a performance the

 Lamas'

Lamas' map is, which errs 3½° in latitude. It alſo placed Laſſa, which ought to be a well known poſition to them, a full degree too far to the ſouth.

In the conſtruction of the map of the Gogra, 32 coſſes are reckoned to a degree, in a country, the moſt rugged and mountainous, imaginable; while 42 is the ſtandard in the level country. A diſtinction, however, muſt be made in the ſcale of the upper and lower parts of the courſe of the river. For, from Mirzapour, which occurs in my map of Oude, to the lake Douloo-Sagur, the country is generally level: and was alſo explored by Tiefentaller himſelf; while the upper part is taken from the reports of a native. Therefore I have allowed 43 coſſes to a degree, between thoſe two points; ſo that the diſtance will be 98 G. miles, inſtead of the 131 in the map. Then for the upper part of the river, I have allowed 60 coſſes to make a degree, inſtead of 32: by which the diſtance from the lake Douloo-Sagur, to the lake Lanke, is only 230 G. miles, inſtead of the 373 on the map. To thoſe who may object to ſo great a diminution, as from 60 to 32; I ſhall obſerve, that 32, or even 37½ coſſes to a degree, is a proportion widely different from that which my experience ſuggeſts: and which allows 42 in the level country of Hindooſtan proper: (ſee page 5) and whoſoever has travelled in very mountainous countries, and has moreover traced the courſe of a river through it; will not object to the diminiſhing to 1, what was 1,43 in the plains: for this is the proportion between 60 and 42.

If Tiefentaller's ſcale is right, the Lanke lake would be in latitude 36° and upwards; which I conſider as highly improbable. It is certain that our beſt maps of Aſia (that is, D'Anville's) preſent nothing but a blank ſpace, in the part aſſigned to the heads of theſe rivers, by M. Anquetil du Perron: and therefore, there is no poſitive evidence againſt it.

In aſcending this river Gogra we find noted in the map, not far within the firſt ridge of mountains, and near the ſecond ridge, three

three ſubterraneous caverns, from whence proceed with violence, fire, wind, and water. No other particulars are given. About 30 miles higher up, the Gogra forces its way through that vaſt ridge which has been often taken notice of before, under the name of Himmaleh, and which is a branch of the Himaus, or Imaus, of the ancients. This ridge, which is covered with ſnow, and viſible from the plains of Hindooſtan, appears to be the general boundary of Thibet, through that whole extent from the Ganges to the Teeſta river; incloſing between it and Hindooſtan, a tract of country, from 100 to 180 miles in breadth; divided into a number of ſmall ſtates, none of which are underſtood to be either tributaries or feudatories of Thibet: ſuch as Sirinagur, Almora, Kemaoon, Gorka, Napaul, and Morung. Bootan, a feudatory of Thibet, cloſes on the eaſt of this tract; and is the extent of our knowledge, as to particulars, that way.

The ſmall number of towns and villages on the banks of this river, induces one to ſuppoſe that the weſtern part of Thibet, is no better inhabited than we have before deſcribed the eaſtern part of it to be. Indian names prevail, even within Thibet: and a temple of Mahadeo is found on the banks of the Manſaroar lake.

We have before ſtated the diſtance of the cow's mouth, or Gangotri, to be about 280 or 300 road miles, above Hurdwar; where the Ganges enters the plains of Hindooſtan. As the compaſs of Tiefentaller's map of the Ganges, declines 12 degrees more to the weſtward of north, than that of the ſurvey does, between Allahabad and Hurdwar; this allowance is made accordingly: and Tiefentaller's diſtance exceeds that of the ſurvey, within the ſame ſpace, which is 331 G. miles, about $\frac{2}{13}$ of the whole. Not being abſolutely certain whether or not Tiefentaller took the latitude of Gangotri, I did not venture to alter the parallel in which he has placed it, 33°: but contented myſelf with correcting the bearing 12 degrees; thereby ſhortening the diſtance, which was originally 240 miles, to 227. If the latitude was not taken, by cœleſtial obſerva-

obſervation, but the diſtance calculated on the ſcale of 37½ coſſes to a degree, the Gangotri will ſtill be placed too far to the north.

To ſum up the whole information, collected from the different accounts of the upper part of the courſe of the Ganges, it appears that the two branches of it, which ſpring from the weſtern ſide of Mount Kentaiſſe, take their courſe weſtward, inclining conſiderably to the north, for a courſe of about 300 miles, in direct diſtance; when meeting the great chain or ridge of Mount Himmaleh, which extends from Cabul along the north of Hindooſtan, and through Thibet, the rivers are compelled to turn to the ſouth; in which courſe they unite their waters, and form what is properly termed the river Ganges. This great body of water now forces a paſſage *through* the ridge of Mount Himmaleh, at the diſtance, poſſibly, of 100 miles below the place of its firſt approach to it, and ſapping its very foundations, ruſhes through a cavern, and precipitates itſelf into a vaſt baſon which it has worn in the rock, at the hither foot of the mountains. The Ganges thus appears, to incurious ſpectators, to derive its original ſprings from this chain of mountains: and the mind of ſuperſtition has given to the mouth of the cavern, the form of the head of a cow; an animal held by the Hindoos, in a degree of veneration, almoſt equal to that, in which the Egyptians of old, held their god Apis.

From this ſecond ſource (as it may be termed) of the Ganges, its courſe becomes more eaſtwardly than before, through the rugged country of Sirinagur; until, at Hurdwar, it finally eſcapes from the mountainous tract, in which it has wandered for about 800 B. miles. At Hurdwar, it opens itſelf a paſſage through Mount Sewalick; which is the chain of mountains that borders on the level country, on the north of the province of Delhi. Even Sewalick would be deemed a lofty ridge, but for the preſence of Mount Himmaleh, or *Imaus*; which riſes behind it, when viewed from the plains of Hindooſtan.

It may truly be ſaid that the knowledge of the origin of the Ganges was reſerved for the preſent age: for it was as late as the year 1717, that the Emperor CAMHI, ſent perſons to explore it, and to bring ſome of its water back with them to Pekin, a journey of about 2500 B. miles from the head of the Ganges. Until the reſult of this expedition was known in Europe, it was believed, on the faith of the Hindoos, that the ſprings of the Ganges, were at the foot of Mount Himmaleh.

A circumſtance attending the courſes of the Ganges and Burrampooter rivers, in reſpect to each other, is remarkably ſingular. Iſſuing from oppoſite ſides of the ſame ridge of mountains, they direct their courſes towards oppoſite quarters, till they are more than 1200 miles aſunder; and afterwards meet in one point near the ſea, after each has performed a winding courſe of more than 2000 miles. Our ignorance of this circumſtanc, till ſo very lately, is a ſtrong preſumptive proof, that there yet remains a vaſt field for improvement, in the geography of the eaſtern part of Aſia.

SECTION

SECTION VII.

TABLES *of* DISTANCES *in* HINDOOSTAN.

THE following Tables, will, it is hoped, be particularly acceptable, not only to thoſe, who for uſeful purpoſes may be deſirous of calculating the time required for a courier or meſſenger to travel from one place to another, but alſo to thoſe, who on the ſcore of curioſity, or for the illuſtration of hiſtory, may wiſh to be informed of the diſtances between the principal towns in Hindooſtan. This information cannot be obtained merely by the application of the compaſſes to the map, becauſe the windings and inflections of the roads are not there taken into the account: but an approximation towards it, may be obtained, by the double operation of meaſuring the diſtance on the map, and then applying to it, the rule given in page 7 of this Memoir.

To accompliſh the taſk above propoſed, I firſt ſelected the names of ſuch cities and other places as appeared likely to become objects of enquiry in future; and in ſo extenſive a country, no leſs than 168 ſuch places occurred. To have given the diſtance between every two of theſe places reſpectively, would not only have extended the tables to an immoderate length (upwards of 14,000 diſtances occurring on the above number) but would have burthened the purchaſer with much uſeleſs matter. For inſtance, although Jionpour has a political connexion with Lucknow, and Tanjore with Madras; and it may be neceſſary that the diſtance of each of theſe ſubordinate places from its ſuperior, ſhould be given:

yet, as Jionpour and Tanjore ſtand in little or no relation to each other, it was of no uſe to give the diſtance between them. The ſame may be ſaid of moſt of the other ſubordinate places.

The method, therefore, that I have followed, is this: I have choſen ſuch places as appear to be of the greateſt political conſequence (ſuch as the Britiſh Preſidencies, and the Courts of the native Princes) and of which I reckon 12; and conſidering them as centres, have formed for each a ſeparate table, in which the diſtance from the central place to every other place of note, whoſe ſituation may be ſuppoſed to become a matter of enquiry, is inſerted; the names following in alphabetical order. A page is allotted to each of theſe central places, which are AGRA, BENARES, BOMBAY, CALCUTTA, DELHI, HYDERABAD, LUCKNOW, MADRAS, NAGPOUR, OUGEIN, POONAH, and SERINGAPATAM, and theſe alſo follow in the ſame order.

The tables contain near 1000 diſtances; and although theſe are reckoned only from 12 different points, yet by attending to the particulars of each table, a great many other diſtances may be found; as the communication between places, is uſually by the medium of the capital towns that intervene (ſee page 6). For inſtance, the diſtance between Arcot and Allahabad may be collected from the tables of Hydrabad and Nagpour, as theſe places lie in the line of direction between the two former. Alſo, the diſtance between Patna and Aurungabad may be found by means of the Nagpour table: and that from Mirzapour to Surat, by ſubtracting the diſtance of the one from the other, in the Benares table. And by the ſame methods, the diſtances between moſt other places of note may be found. And in order to facilitate the ſearch, and bring into one view the reſpective poſitions of the ſeveral places mentioned in the tables, I have added a ſmall map.

To avoid repeating the diſtances between the 12 central or primary places, through every table, they are inſerted in that table, alone, whoſe name ſtands firſt in the alphabet. Thus the diſtance

 between

between CALCUTTA and AGRA, will be found in the AGRA table, and not in that of CALCUTTA.

With respect to the distances themselves, it must not be expected that they are in general critically exact; for although the positions of 8 out of the 12 primary places are determined with some degree of precision; and 3 out of the 4 remaining ones, pretty nearly; yet the intermediate roads have, in few instances (those between Bengal and Delhi excepted) been measured. But since the publication of the first tables, the measured routes of Col. Pearse from Calcutta to Madras, Mr. Ewart's between Calcutta and Nagpour; and Mr. Pringle's tables of routes in the Carnatic; have come to hand: and the present tables will accordingly be found much improved. The deficiencies could only be supplied by the computed distances; which, however, appear to come as near the truth in India, as in any country whatever: or where these have failed, by allowing such a degree of winding, as is found by experience to take place in a similar kind of country. The cos is always reckoned at one British mile and nine-tenths, in road measure. For other particulars respecting the length of the cos, and the windings of roads, the reader is desired to turn to the first pages of this Memoir.

The length of a day's journey in Hindoostan (as has been observed before) is from 11 to 12 cosses, or about 22 miles, for an ordinary traveller. But that of a courier, or professed messenger, may be reckoned at 30 or 33; and on occasions of emergency, they can travel even more; and that for a continuance of 15 or 20 days.

A regular post is established throughout the parts of Hindoostan subject to the East India Company, and also from Calcutta to Madras. The postmen always travel on foot. Their stages are commonly from 7 to 8 miles; and their rate of travelling within our own districts, about 70 miles in the 24 hours.

TABLE

TABLE I.

AGRA, to

	British Miles.
Agimere	230
Allahabad	296
Amedabad	534
Amednagur	713
Arcot	1160
Attock	704
Aurungabad	633
Bareilly	129
Beder	740
Benares	379
Bifnagur	989
Bombay *by Burhanpour*	848
by Amedabad	858
Burhanpour	508
Cabul	922
Calberga	865
Calcutta *by Moorfhedabad*	944
by Birboom	839
Calpy	160
Cambay	587
Candahar	942
Canoge	127
Cafhmere	728
Cattack	785
Chatterpour	212
Cheitore	300
Corah	184
Dacca	990
Delhi	117
Dowlatabad	628
Ellichpour	487
Etayah	71
Fyzabad. *See Oude.*	
Goa	1020
Golconda	790
Gwalior	80
Hurdwar	217
Hydrabad *by Elichpour*	806
by Nagpour	835
Jagarnaut	793
Joinagur *or Jaepour*	136
Lahore	503
Lucknow	202
Madras *by Elichpour*	1158
by Nagpour	1187
Mafulipatam	831
Meerta	294
Mirzapour	346
Moorfhedabad	826
Moultan *by Delhi*	611
Mundu	420
Myfore	1238
Nagpour *by Huffingabad*	548
by Chatterpour	514
Napaul	424
Narwah	127
Oude *or Fyzabad*	287
Ougein *by Narwah*	374
Patna	544
Pondicherry	1287
Poonah	796
Ramgaut	74
Rantampour	120
Ruttunpour	513
Sattarah	840
Seringapatam	1230
Sirong	253
Sumbulpour	617
Surat *by Amedabad*	680
Tatta *or Sindy*	887
Vifiapour	825
Warangole	868

TABLE II.—BENARES to

	British Miles.
Agimere	571
Allahabad	83
Amedabad	793
Arcot	1105
Attock	1083
Aurungabad	740
Balaſore *by Chuta Nagpour*	316
Bareilly	345
Baroach	820
Beder	726
Bidjigur	56
Bilſah	416
Bombay *by Nagpour*	982
by Burhanpour	950
Bopaltol	449
Burhanpour *by Sagur*	609
Buxar	70
Cabul	1301
Calberga *or Kilberga*	783
Calcutta *by Moorſhedabad*	565
by Birboom	460
Calpy	239
Cambay	806
Candahar	1321
Canoge	259
Caſhmere	1107
Cattack, *by Chuta Nagpour*	452
Chatterpour	237
Cheitore	601
Chittigong	752
Chunargur	17
Corah	195
Dacca	601
Delhi	496
Dowlatabad	742
Ellichpour	552
Etayah	308
Furruckabad	295
Fyzabad. *See Oude.*	
Ganjam	570
Ghod *or Gohud*	336
Goa	1070
Golconda	750
Gurrah	270
Gwalior	355
Hurdwar	500
Hydrabad	751
Jagarnaut	512
Jionpour	42
Indore	584
Joinagur *or Jaepour*	515
Lahore	882
Lucknow	189
Madras *by Hydrabad*	1103
Maſulipatam *by Nagpour*	853
Meerta	636
Mindygaut	253
Mirzapour	30
Monghir	255
Moorſhedabad *by Birboom*	417
by Monghir	477
Moultan	990
Mundlah	306
Myſore	1165
Nagpour	430
Napaul	280
Narwah	356
Oude	130
Ougein	554
Patna *by Buxar*	155
by Daoadnagur	165
Pawangur	754
Pondicherry	1203
Poonah *by Nagpour*	916
by Burhanpour	897
Ramgaut	419
Rewah	126
Rotaſgur	81
Ruttunpour	275
Sagur	341
Sattarah	942
Seringapatam	1157
Sindy *or Tatta*	1210
Sirong	389
Sumbulpour	375
Surat *by Sirong and Ougein*	863
by Burhanpour	869
Tanjore *by Nagpour*	1273
Tritchinopoly	1277
Viſagapatam	758
Viſiapour	876

TABLE III.—BOMBAY to

	British Miles.
Agimere *by Amedabad*	650
Allahabad *by Nagpour*	977
Amedabad - -	321
Amednagur *by Poonah*	181
Anjenga - -	900
Arcot - -	722
Aurungabad *by Callian*	260
by Poonah	284
Baroach - -	221
Baſſeen - -	27
Beder - -	426
Bednore - -	452
Biſnagur - -	398
Bopaltol - -	516
Burhanpour *by Poonah*	386
by Chandor	340
Calberga - -	386
Calcutta *by Poonah* -	1301
Callian - -	32
Calpy - -	821
Cambay - -	281
Canoge - -	889
Caſhmere - -	1233
Cattack - -	1034
Chatterpour -	747
Cheitore - -	547
Cochin - -	780
Corah - -	853
Damaun - -	107
Delhi *by Amedabad and Agimere*	880
by Burhanpour -	965
Dowlatabad -	258
Fyzabad. *See Oude.*	
Goa - -	292
Golconda - -	475
Gwalior - -	768
Huſſingabad Gaut -	500
Hydrabad - -	480
Jagarnaut - -	1052
Janſi - -	728
Jeſſelmere - -	680
Indore *by Pawangur* -	456
Joinagur *or Jaepour* -	740
Lahore - -	1010
Lucknow - -	923
Madras - -	758
Mangalore - -	518
Maſulipatam -	686
Meerta - -	610
Mirzapour - -	952
Moorſhedabad -	1259
Moultan *by Jeſſelmere*	920
Mundu - -	454
Myſore - -	630
Nagpour *by Poonah* -	577
by Callian -	552
Narwah - -	721
Onore - -	398
Oude *by Burhanpour and Sirong*	1013
Ougein *by Pawangur* -	486
by Burhanpour	504
Patna *by Rewah* -	1145
Pawangur - -	286
Pondicherry -	805
Poonah - -	98
Ruttunpour - -	772
Saler-Mouler -	182
Sattarah - -	146
Seringapatam -	622
Sindy *or Tatta* -	741
Sirong - -	595
Sumbulpour -	826
Surat - -	177
Tellicherry - -	615
Viſiapour - -	234
Vizrabuy *or Vizarabie*	48

TABLE IV.—CALCUTTA to

	British Miles.
Adoni - -	1030
Agimere *by Moorshedabad*	1136
by Birboom -	1030
Allahabad *by M.* -	649
by B. -	544
Amedabad *by Ougein*	1234
Amednagur -	1119
Anjenga - -	1577
Aracan - -	475
Arcot - -	1070
Assam, *Capital of* -	660
Attock - -	1648
Ava - -	1150
Aurungabad -	1022
Bahar - -	297
Balasore - -	141
Baroach *by Nagpour* -	1220
Bareilly *by M.* -	910
by B. -	805
Basseen *by Poonah* -	1317
Beder - -	980
Bednore - -	1290
Bilsah *by Mundlah* -	867
Bisnagur - -	1120
Bopaltol *by Mirzapour*	929
by Mundlah -	892
Burhanpour *by Nagpour*	978
Buxar *by M.* -	485
by B. - -	408
Cabul *by M.* -	1866
by B. - -	1761
Calberga *by the Circars*	1018
Calpy *by M.* -	804
by B. - -	699
Cambay *by Nagpour* -	12 3
by Mundlah and Ougein	1253
Candahar *by Moorshedabad*	1886
by Birboom - -	1781
Canoge *by M.* - -	824
by B. - - -	719
Cashmere, *Capital of*, *by M.*	1672
by B. - -	1567
Cattack - - -	251
Chatterpour *by M.* - -	803
by B. -	698
Cheitore *by M.* -	1168
by B. -	1063
Chittigong - -	317
Chunargur *by M.* -	574
by B. -	469
Cicacole - -	490
Comorin Cape -	1470
Condavir *or Guntoor*	791
Corah *by M.* -	760
by B. -	655
Dacca - -	177
Delhi *by M.* -	1061
by B. - -	956
Dellamcotta - -	344
Dowlatabad - -	1020
Ellichpour - -	844
Ellore - -	719
Etayah *by M.* -	873
by B. -	768
Furruckabad *by M.* -	860
by B. -	755
Ganjam - -	369
Gangpour - -	393
Ghod *or Gohud by M.*	888
by B. -	783
Goa - -	1300
Golconda - -	907
Guntoor. *See Condavir.*	
Gwalior *by M.* -	910
by B. -	805

CALCUTTA to

	Britiſh Miles.
Hurdwar *by M.* -	1080
by B. -	975
Hunſſigabad Gaut *by Nagpour*	909
Hydrabad *by Nagpour*	1043
by the Circars	902
Jagarnaut - -	311
Indore *by Mundlah* -	1030
Joinagur *or Jaepour by M.*	1080
by B.	975
Lahore *by M.* -	1447
by B. -	1342
Laſſa - -	850
Lucknow *by M.* -	754
by B. -	649
Madras - -	1030
Madura - -	1336
Maſulipatam -	764
Meerta *by M.* -	1197
by B. -	1092
Mindygaut *by M.* -	818
by B. -	713
Mirzapour *by M.* -	598
by B. -	493
Monghir *by M.* -	301
by B. -	275
Moorſhedabad -	118
Moultan *by M.* -	1565
by B. -	1450
Mundilla - -	634
Myſore - -	1178
Nagpour, *Great*	
by Ruttunpour	722
by Cattack -	733
Nagpour, *Little* -	280
Napaul - -	591
Narwah *by M.* -	922
by B. -	817

	Britiſh Miles.
Ongole - -	829
Oude *by Moorſhedabad and Benares* -	695
by Birboom and Benares	590
by Moorſhedabad and Azimgur -	639
by Birboom and Azimgur	562
Ougein *by Patna* -	1066
by Nagpour -	1062
by Mundlah -	997
Patna *by M.* -	400
by B. - -	340
Pawangur *by Ougein* -	1197
Pondicherry - -	1130
Poonah *by Nagpour* -	1208
by the Circars	1289
Ramgaut *by M.* -	984
by B. -	879
Rajamundry - -	665
Ruttunpour *by Little Nagpour*	493
by Cattack	545
Sagur *by Mundlah* -	806
Sattarah *by Nagpour* -	1232
Seringapatam -	1170
Silhet - -	325
Sindy *or Tatta* -	1602
Sirong *by Benares* -	849
Sumbulpour *by Cattack*	441
by Little Nagpour	438
Surat *by Benares and Ougein*	1309
by Nagpour -	1238
Tanjore - -	1235
Tritchinopoly -	1238
Viſagapatam -	557
Viſiapour *by the Circars*	1183
by Aurungabad	1216

TABLE V.—DELHI to

	British Miles.
Agimere	230
Allahabad	412
Amedabad	610
Amednagur	830
Aracan	1420
Arcot	1277
Assam	1318
Attock	587
Aurungabad	750
Bahar	642
Bareilly	142
Beder	857
Bisnagur	1106
Burhanpour	625
Cabul	805
Calberga	982
Calpy	277
Cambay	668
Candahar	825
Canoge	214
Cashmere *by Lahore*	611
Cattack	902
Cheitore	327
Comorin Cape	1728
Corah	301
Dacca	1107
Dowlatabad	745
Ellichpour	604
Etayah	188
Fyzabad. *See Oude.*	
Ghizni *or Gazna*	749
Goa	1158
Golconda	958
Gwalior	197
Hurdwar	117
Hussun-Abdaul	550
Hydrabad *by Ellichpour*	923
by Nagpour	952
Jagarnaut	910
Jionpour	456
Joinagur *or Jaepour*	156
Jummoo	379
Lahore	386
Lucknow	279
Madras *by Ellichpour*	1275
by Nagpour	1304
by Burhanpour	1357
Masulipatam	1084
Meerta	295
Mindygaut	220
Mirzapour	463
Moorshedabad	943
Moultan	494
Mysore	1330
Mundu	481
Nagpour	631
Napaul	500
Narwah	244
Oude	364
Ougein	435
Panniput	72
Patna	661
Pishour *or Peishore*	634
Pondicherry	1400
Poonah	913
Ramgaut	77
Ruttunpour	633
Sattarah	963
Seringapatam	1321
Sindy *or Tatta*	810
Sirhind	195
Sirong	370
Sumbulpour	730
Surat	756
Visiapour	916
Warangole	985

TABLE VI.—HYDRABAD to

	Britiſh Miles.
Adoni	175
Agimere	800
Allahabad	703
Amedabad	661
Amednagur	335
Arcot	354
Aurungabad	295
Balaſore	761
Bancapour (Sanore)	267
Bangalore	352
Baroach *or Broach*	549
Beder	78
Bednore	413
Bilſah	506
Biſnagur	264
Bopaltol	495
Burhanpour *by Jaffierabad*	380
by Aurungabad	417
Calberga	116
Calpy	715
Cambay	620
Canoul	127
Cattack	651
Chatterpour	623
Cheitore	713
Chitteldroog	322
Cicacole	412
Combam *or Commum*	145
Condanore	156
Condavir	131
Condapilly	142
Corah	728
Cuddapa	230
Dalmacherry	278
Dowlatabad	303
Ellichpour	319
Ellore	183
Fyzabad. *See Oude.*	
Ganjam	533
Goa	416
Golconda	5
Gooty	178
Guntoor. *See Condavir.*	
Gurramconda	275
Gurry-Mundlah	476
Gwalior	726
Huſſingabad Gaut	444
Jaffierabad	303
Jagarnaut	591
Janſi	684
Indore	550
Ingeram	272
Joinagur *or Jaepour*	829
Lahore	1309
Lucknow	795
Madras	352
Madura	613
Mahur *or Maor*	173
Mangalore	470
Maſulipatan	203
Meerta	800
Mirzapour	722
Moorſhedabad	1020
Mundu	498
Myſore	414
Nagpour	321
Narwah	679
Neermul	144
Omrautty	293
Ongole	164
Oude	811
Ougein *by Jaffierabad*	544
Patna *by Nagpour and Rewah*	914
Pondicherry	452
Poonah	387
Rachour	91
Rajamundry	237
Raolconda	144
Roydroog	252
Ruttunpour	551
Sagur	536
Sattarah	366
Seringapatam	406
Sindy *or Tatta*	1074
Sirong	553
Sirripy	317
Sollapour	144
Surat	575
Tanjore	522
Timerycotta	71
Tinevelly	709
Tritchinopoly	526
Viſagapatam	355
Viſiapour	269
Warangole	62
Yanam	272

TABLE VII. — LUCKNOW to

	British Miles.		British Miles.
Agimere	428	Goorackpour	170
Allahabad	127	Gwalior	211
Amedabad	770	Hurdwar	311
Arcot	1147	Jagarnaut	660
Aurungabad	696	Janſi	190
Bahar	388	Jionpour	147
Bahraitch	73	Indore	522
Bareilly	156	Joinagur *or Jaepour*	338
Baroach	761	Kairabad	31
Belgram	70	Lahore	639
Bilſah	367	Mahomdy	92
Bidzigur	234	Maſulipatam *by Nagpour*	897
Bopaltol	398	Meerta	493
Burhanpour	573	Mindygaut	69
Buxar	232	Mirzapour	182
Cabul	1084	Monghir	416
Callinger *or Kawlinger*	149	Moorſhedabad	597
Calpy	98	Moultan	742
Canoge	75	Mundlah	337
Caſhmere	890	Nagpour	474
Cattack	641	Narwah	258
Cawnpour	49	Oude *or Fyzabad*	85
Chanderee	270	Ougein	495
Chatterpour	172	Patna	316
Cheitore	503	Pondicherry	1247
Chittigong	941	Poonah	882
Chunar	197	Ramgaut	201
Corah	67	Rewah	182
Currah	93	Rotaſgur	270
Dacca	790	Ruttunpour	392
Dowlatabad	728	Sagur	300
Dynapour	304	Sattarah	910
Etayah	144	Seringapatam	1201
Furruckabad	111	Sindy *or Tatta*	1089
Fyzabad. *See Oude.*		Sirong	318
Ghod *or Gohud*	188	Sultanpour	92
Goa	1115	Sumbulpour	497
Golconda	794	Viſiapour	920

TABLE VIII. — MADRAS to

	British Miles.
Adoni	310
Agimere	1152
Allahabad	1055
Amedabad	1049
Anjenga	506
Arcot	73
Aurungabad	647
Balasore	689
Bancapour (Sanore)	416
Bandarmalanka	358
Bangalore	215
Baroach	947
Beder	430
Bednore	445
Bisnagur	386
Burhanpour *by Aurungabad*	769
by Jaffierabad	732
Cabul	2080
Calberga	422
Cambay	998
Canoge	1141
Canoul	279
Cashmere	1886
Cattack	779
Chatterpour	975
Cheitore	1065
Chitteldroog	335
Cicacole	540
Coimbetour	306
Combam *or Commum*	214
Comorin Cape (Arameny Gate)	440
Condapilly	306
Condavir	276
Conjeveram	46
Corah	1080
Cuddapa	153
Dalmacherry	115
Dindigul	275
Dowlatabad	655
Ellichpour	671
Ellore	310
Ganjam	661
Goa	575
Golconda	358
Gooty *or Gutti*	269
Guntoor. *See Condavir.*	
Gurramconda	153
Gwalior	1078
Jagarnaut	719
Indore	902
Ingeram	399
Lahore	1661
Madura *by Tanjore*	307
Mangalore	440
Masulipatam	292
Mirzapour	1074
Moorshedabad	1148
Mundu	850
Nagpour	673
Negapatam	183
Nellore	120
Oude	1163
Ougein	896
Palamcottah	401
Patna *by Nagpour*	1266
Pondicherry	100
Poonah	660
Rachore	323
Rajamundry	365
Raolconda	382
Ruttunpour	903
Sattarah	626
Seringapatam	290
Siccacollam	267
Sindy *or Tatta*	1467
Sirong	905
Sirripy	281
Surat	903
Tanjore	205
Timerycotta	278
Trankebar	165
Travancore	464
Tritchinopoly	208
Tutacorin	394
Vellore	88
Visagapatam	483
Visiapour	534
Warangole	414
Yanam	400

TABLE IX.—NAGPOUR to

	Britiſh Miles.
Adoni	496
Allahabad	382
Amedabad	576
Amednagur	403
Arcot	675
Aurungabad	300
Balaſore	592
Bareilly	576
Beder	302
Bednore *by Hydrabad*	734
Bilſah	249
Biſnagur	569
Boad	347
Bopaltol	238
Burhanpour	256
Burwa	383
Calberga	358
Calpy	394
Canoge	486
Cattack	482
Chanda	90
Chanderee	302
Chatterpour	302
Cheitore	510
Chetra *or Chittrah*	463
Chunargur	420
Cicacole	400
Condapilly	370
Condavir *or Guntoor*	385
Coomtah	93
Corah	407
Cuddapa	551
Dowlatabad	305
Ellichpour	122
Ellore	377
Gangpour	330
Ganjam *by Boad and Gumſoar*	480
Gawile *or Gyalgur*	137
Goa	640
Golconda	320
Gooty *or Gutti*	500
Gumſoar	434
Gurrah	160
Gwalior *by Huſſingabad*	480

	Britiſh Miles.
Huſſingabad Gaut	187
Jagarnaut	500
Indore	371
Joinagur *or Jaepour*	540
Mahur *or Maor*	167
Maſulipatam	423
Meerta	596
Mirzapour	401
Moorſhedabad *by Chuta Nagpour*	695
Mundilla	155
Nagpour *Little*	433
Narnalla	164
Narwah *by Huſſingabad*	421
Neermul	177
Omrautty	113
Oude *or Fyzabad*	496
Ougein *by Bopaltol*	340
Panniput	703
Patna *by Ruttunpour*	577
by Rewah	593
Pondicherry	773
Poonah	486
Rachore	412
Ramgaut	588
Ramgur *in Bahar*	483
Raypour	200
Rewah	304
Rotaſgur	440
Ruttunpour	220
Sagur	215
Sattarah	512
Seringapatam	727
Sirong *by Huſſingabad*	295
Sonepour *or Jonepour*	300
Sumbulpour	292
Surat	516
Surgoojah	318
Tanjore	843
Tritchinopoly	847
Vellore	670
Viſagapatam	394
Viſiapour	448
Warangole	258

TABLE X.—OUGEIN, to

	British Miles.		British Miles.
Agimere - -	256	Jansi - -	298
Allahabad -	480	Jesselmere - -	365
Amedabad - -	275	Indore - -	30
Amednagur -	365	Joinagur *or Jaepour* -	285
Arcot - -	905	Joudypour -	260
Aurungabad -	287	Kotta - -	150
Baroach - -	266	Meerta - -	256
Bareilly - -	503	Mirzapour - -	526
Basseen - -	448	Moorshedabad *by Gurry-Mundlah*	983
Bilsah - -	140	*by Patna*	1007
Bisnagur - -	645	Mundu - -	46
Bopaltol - -	112	Mundilla - -	363
Burhanpour -	164	Naderbar *or Noondabar*	203
Calpy - -	382	Nagore - -	305
Cambay - -	270	Nagpour *Little* -	780
Canoge - -	464	Narwah *direct* -	254
Cattack, *by Nagpour* -	822	*by Sirong* -	291
Chanderee -	242	Oudipour - -	135
Chatterpour - -	320	Patna - -	726
Cheitore - -	169	Pondicherry -	998
Corah - -	426	Poonah *by Burhanpour*	452
Dowlatabad -	280	Powangur - -	200
Ellichpour -	237	Ramgaut - -	488
Etayah - -	402	Rantampour - -	260
Furruckabad -	468	Ruttunpour - -	508
Fyzabad *or Oude* -	583	Sagur - -	212
Ghod *or Gohud* -	356	Sattarah - -	502
Goa *by Poonah* -	697	Seringapatam -	886
Golconda - -	539	Sirong - -	165
Gwalior - -	336	Sumbulpour -	608
Hindia - -	116	Surat - -	309
Hussingabad Gaut -	153	Visiapour - -	474
Jalore - -	220		

TABLE XI.—POONAH to

	Britiſh Miles.
Adoni	360
Agimere	670
Allahabad *by Sirong*	853
Amedabad	389
Amednagur	83
Arcot	624
Aurungabad	186
Balaſore	1078
Bancapour (Sanore)	268
Bangalore	521
Bareilly	910
Baroach	287
Baſſeen	114
Beder	310
Bednore	382
Bilſah	496
Biſnagur	300
Bopaltol	463
Burhanpour	288
Calberga	271
Callian	91
Calpy	768
Cambay	338
Canoge	842
Canoul	387
Cattack *by Nagpour*	968
Chanderee	620
Chatterpour	695
Cheitore	570
Chitteldroog	411
Condavir *or Guntoor*	528
Corah	812
Dalmacherry	548
Dowlatabad	184
Ellichpour	380
Ellore	570
Etayah	779
Furruckabad	847
Ghod *or Gohud*	726
Goa	245
Golconda	382
Gooty *or Gutti*	392
Gwalior	716
Huſſingabad Gaut	450
Jagarnaut *by Nagpour*	986
Janſi	674
Indore	450
Joinagur *or Jaepour*	737
Mangalore	455
Maſulipatam	590
Mahur *or Maor*	355
Meerta	644
Mindygaut	844
Mirzapour *by Sirong*	900
by Nagpour	887
Moorſhedabad *by Nagpour*	1181
Mundilla	641
Mundu	406
Naderbar	230
Nagpour *Little*	919
Narwah	669
Omrautty	373
Oude *or Fyzabad*	947
Panniput	985
Patna *by Sirong*	1090
by Nagpour	1063
Pawangur	352
Pondicherry	707
Poorundar	18
Rachore	357
Ramgaut	870
Ruttunpour	706
Rydroog	386
Sagur	556
Sattarah	50
Seringapatam	525
Sirong	543
Sumbulpour	778
Surat	243
Tanjore	762
Tatta *or Sindy*	807
Tritchinopoly	730
Vellore	616
Viſagapatam	742
Viſiapour	136
Viſrabuy	112

TABLE XII.—SERINGAPATAM to

	Britiſh Miles.
Adoni	243
Amednagur	541
Anjenga	325
Arcot	217
Aurungabad	599
Bancapour (Sanore)	231
Bangalore	74
Beder	432
Bednore	187
Biſnagur	260
Burhanpour	722
Calicut	129
Calberga	390
Canoul	279
Changamah	178
Chitteldroog	115
Cochin	214
Coimbetour	122
Combam *or Commum*	291
Comorin Cape	380
Condanore	250
Condapilly	444
Condavir *or Guntoor*	414
Cuddapa	220
Dalmacherry	202
Dindigul	198
Dowlatabad	606
Ellichpour	695
Ellore	448
Goa	335
Golconda	408
Gooty *or Gutti*	228
Gurramconda	172
Jagarnaut	860
Madura	240
Mangalore	162
Maſulipatam	430
Myſore	8
Negapatam	296
Ongole	338
Onore	244
Palamcotta	317
Palicaudcherry	131
Pondicherry	260
Rachore	315
Raolconda	322
Roydroog	168
Sattarah	477
Sirripy	89
Sollapour	302
Tanjore	237
Tellicherry	128
Tinevelly. *See Palamcotta.*	
Timerycotta	363
Trankebar	295
Travancore	344
Tritchinopoly	205
Vellore	202
Viſiapour	405

APPENDIX.

ADVERTISEMENT.

THE within Tract has already made its appearance in the Philosophical Transactions of 1781. It was suggested to the Author, that it would make a very proper Appendix to the MEMOIR OF THE MAP OF HINDOOSTAN; and he accordingly offers it to the Public under that denomination: happy should the Appendix meet a degree of indulgence, equal to what the Work itself has experienced.

AN

ACCOUNT

OF THE

GANGES

AND

BURRAMPOOTER RIVERS.

They gathering many a flood, and copious fed
With all the mellowed treasures of the sky,
Wind in progressive majesty along;
And traverse realms unknown, and blooming wilds,
And fruitful desarts —— Forsaking these,
O'er peopled plains they fair-diffusive flow,
And many a nation feed, and circle safe,
Within their bosom many a happy isle.
Thus pouring on, they proudly seek the deep,
Whose vanquish'd tide, recoiling from the shock,
Yeilds to this liquid weight ——

THOMSON'S SEASONS.

AN ACCOUNT, &c.

THE * GANGES and † BURRAMPOOTER Rivers, together with their numerous branches and adjuncts, interſect the country of BENGAL (which, independent of BAHAR and ORISSA, is ſomewhat larger than GREAT BRITAIN) in ſuch a variety of directions, as to form the moſt complete and eaſy inland navigation that can be conceived. So equally and admirably diffuſed are thoſe natural canals, over a country that approaches nearly to a perfect plane, that, after excepting the lands contiguous to Burdwan, Birboom, &c. which may be reckoned a ſixth part of Bengal, we may ſafely pronounce, that every other part of the country, has, even in the dry ſeaſon, ſome navigable ſtream within 25 miles at fartheſt, and more commonly within a third part of that diſtance.

It is ſuppoſed, that this inland navigation gives conſtant employment to 30,000 boatmen. Nor will it be wondered at, when it is known, that all the ſalt, and a large proportion of the food conſumed by ten millions of people are conveyed by water within the kingdom of Bengal and its dependencies. To theſe muſt be added, the tranſport of the commercial exports and imports, probably to the amount of two millions ſterling *per annum*; the interchange of manufactures and products throughout the whole country; the fiſheries; and the article of travelling ‡.

* The proper name of this river in the language of Hindooſtan (or Indoſtan) is *Pudda* or *Padda*. It is alſo named *Burra Gonga*, or the Great River; and *Gonga*, the River, by way of eminence; and from this, doubtleſs, the European names of the river are derived.

† The orthography of this word, as given here, is according to the common pronunciation in Bengal; but it is ſaid to be written in the Shanſcrit language, *Brahma-pootar*; which ſignifies the Son of *Brahma*.

‡ The embarkations made uſe of, vary in bulk from 180 tons down to the ſize of a wherry. Thoſe from 30 to 50 tons are reckoned the moſt eligible for tranſporting merchandize.

These

These rivers, which a late ingenious gentleman aptly termed ſiſters and rivals (he might have ſaid *twin* ſiſters, from the contiguity of their ſprings) exactly reſemble each other in length of courſe; in bulk, until they approach the ſea; in the ſmoothneſs and colour of their waters; in the appearance of their borders and iſlands; and, finally, in the height to which their floods riſe with the periodical rains. Of the two, the Burrampooter is the largeſt; but the difference is not obvious to the eye. They are now well known to derive their ſources from the vaſt mountains of THIBET *; from whence they proceed in oppoſite directions; the Ganges ſeeking the plains of HINDOOSTAN (or INDOSTAN) by the weſt; and the Burrampooter by the eaſt; both purſuing the early part of their courſe through rugged vallies and defiles, and ſeldom viſiting the habitations of men. The Ganges, after wandering about 800 miles through theſe mountainous regions, iſſues forth a deity to the ſuperſtitious, yet gladened, inhabitant of Hindooſtan †. From Hurdwar (or Hurdoar) in latitude 30°, where it guſhes through an opening in the mountains, it flows with a ſmooth navigable ſtream through delightful plains, during the remainder of its courſe to the ſea (which is about 1350 miles) diffuſing plenty immediately by means of its living productions; and ſecondarily by enriching the

* Theſe are among the higheſt of the mountains of the old hemiſphere. I was not able to determine their height; but it may in ſome meaſure be gueſſed, by the circumſtance of their riſing conſiderably above the horizon, when viewed from the plains of Bengal, at the diſtance of 150 miles.

† The fabulous account of the origin of the Ganges (as communicated by my learned and ingenious friend C. W. BOUGHTON ROUSE, Eſq.) is, that it flows out of the foot of BESCHAN (the ſame with Viſtnou, the PRESERVING DEITY) from whence, ſay the Bramins, it has its name *Padda*; that word ſignifying foot in the Shanſcrit language: and that in in its courſe to the plains of Hindooſtan, it paſſes through an immenſe rock ſhaped like a Cow's-head.

The allegory is highly expreſſive of the veneration which the Hindoos have for this famous ſtream; and no leſs ſo of their gratitude to the Author of Nature for beſtowing it: for it deſcribes the bleſſing as flowing purely from his bounty and goodneſs.

The rock before mentioned has, I believe, never been viſited by any European; and is even allowed by moſt of the natives to bear no reſemblance to the object from whence it is denominated. However, as the effects of ſuperſtition do often long ſurvive the illuſions that gave it birth, the rock or cavern ſtill preſerves its original name. (This note was written before it was known that M. Tieffentaller had viſited it).

adjacent lands, and affording an eaſy means of tranſport for the productions of its borders. In a military view, it opens a communication between the different poſts, and ſerves in the capacity of a *military way* through the country; renders unneceſſary the forming of magazines; and infinitely ſurpaſſes the celebrated inland navigation of North America, where the *carrying places* not only obſtruct the progreſs of an army, but enable the adverſary to determine his place and mode of attack with certainty.

In its courſe through the plains, it receives eleven rivers, ſome of which are equal to the Rhine, and none ſmaller than the Thames, beſides as many others of leſſer note. It is owing to this vaſt influx of ſtreams, that the Ganges exceeds the Nile ſo greatly in point of magnitude, while the latter exceeds it in length of courſe by one-third. Indeed, the Ganges is inferior in this laſt reſpect, to many of the northern rivers of Aſia; though I am inclined to think that it diſcharges as much or more water than any of them, becauſe thoſe rivers do not lie within the limits of the periodical rains *.

* The proportional lengths of courſe of ſome of the moſt noted rivers in the world are ſhewn nearly by the following numbers;

European Rivers.	
Thames - - -	1
Rhine - - - -	5¼
Danube - - -	7
Wolga - - -	9½
Aſiatic rivers.	
Indus (probably) - -	6½
Euphrates - - -	8½
Ganges - - -	9½
Burrampooter - - -	9½
Nou Kian, or Ava River -	9½
Jenniſea - - -	10
Oby - - -	10½
Amoor - - -	11
Lena - - -	11½
Hoanho (of China) - -	13½
Kian Keu (of ditto) - -	15½
African river.	
Nile - - -	12½
American rivers.	
Miſſiſipi - - -	8
Amazons - - -	15¾

L l The

The bed of the Ganges, is, as may be ſuppoſed, very unequal in point of width. From its firſt arrival in the plains at Hurdwar, to the conflux of the Jumna (the firſt river of note that joins it) its bed is generally from a mile to a mile and a quarter wide; and, compared with the latter part of its courſe, tolerably ſtraight. From hence, downward, its courſe becomes more winding, and its bed conſequently wider *, till, having ſucceſſively received the waters of the Gogra, Soane, and Gunduck, beſides many ſmaller ſtreams, its bed has attained its full width; although, during the remaining 600 miles of its courſe, it receives many other principal ſtreams. Within this ſpace it is, in the narroweſt parts of its bed, half a mile wide, and in the wideſt, three miles; and that, in places where no iſlands intervene. The ſtream within this bed is always either increaſing or decreaſing, according to the ſeaſon. When at its loweſt (which happens in April) the principal channel varies from 400 yards to a mile and a quarter; but is commonly about three quarters of a mile, in width.

The Ganges is fordable in ſome places above the conflux of the Jumna, but the navigation is never interrupted. Below that, the channel is of conſiderable depth, for the additional ſtreams bring a greater acceſſion of depth than width. At 500 miles from the ſea, the channel is thirty feet deep when the river is at its loweſt; and it continues at leaſt this depth to the ſea, where the ſudden expanſion of the ſtream deprives it of the force neceſſary to ſweep away the bars of ſand and mud thrown acroſs it by the ſtrong ſoutherly winds; ſo that the principal branch of the Ganges cannot be entered by large veſſels.

About 220 miles from the ſea (but 300 reckoning the windings of the river) commences the head of the *delta* of the Ganges,

* This will be explained when the windings of the river are treated of.

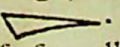
which

which is confiderably more than twice the area of that of the Nile. The two wefternmoft branches, named the Coffimbuzar and Jellinghy rivers, unite, and form what is afterwards named the Hoogly river, which is the port of Calcutta, and the only branch of the Ganges that is commonly navigated by fhips *. The Coffimbuzar river is almoft dry from October to May; and the Jellinghy river (although a ftream runs in it the whole year) is in fome years unnavigable during two or three of the dryeft months; fo that the only fubordinate branch of the Ganges, that is at all times navigable, is the Chundnah river, which feparates at Moddapour, and terminates in the Hooringotta.

That part of the delta bordering on the fea, is compofed of a labyrinth of rivers and creeks, all of which are falt, except thofe that immediately communicate with the principal arm of the Ganges. This tract, known by the name of the Woods, or *Sunderbunds*, is in extent equal to the principality of WALES; and is fo completely enveloped in woods, and infefted with tygers, that if any attempts have ever been made to clear it (as is reported) they have hitherto mifcarried. Its numerous canals are fo difpofed as to form a complete inland navigation throughout and acrofs the lower part of the delta, without either the delay of going round the head of it, or the hazard of putting to fea. Here falt, in quantities equal to the whole confumption of Bengal and its dependencies, is made and tranfported with equal facility: and here alfo is found an inexhauftible ftore of timber for boat-building. The breadth of the lower part of this delta is upwards of 180 miles; to which, if we

* The Hoogly river, or wefternmoft branch of the Ganges, has a much deeper outlet to the fea than the principal branch. Probably this may be owing to its precipitating a lefs quantity of mud than the other; the quantity of the Ganges water difcharged here being lefs than in the other in the proportion of one to fix. From the difficulties that occur in navigating the entrance of the Hoogly river, many are led to fuppofe, that the channels are fhallow. The difficulties, however, arife from bringing the fhips acrofs fome of the fand-banks, which project fo far into the fea, that the channels between them cannot eafily be traced from without.

add that of the two branches of the river that bound it, we ſhall have about 200 miles for the diſtance to which the Ganges expands its branches, at its junction with the ſea.

It has been obſerved before, that the courſe of this river, from Hurdwar to the ſea, is through an uniform plain; or, at leaſt, what appears ſuch to the eye: for, the declivity is much too ſmall to be perceptible. A ſection of the ground, parallel to one of its branches, in length 60 miles, was taken by order of Mr. HASTINGS; and it was found to have about nine inches deſcent in each mile, reckoning in a ſtraight line, and allowance being made for the curvature of the earth. But the windings of the river were ſo great, as to reduce the declivity on which the water ran, to leſs than four inches *per* mile: and by a compariſon of the velocity of the ſtream at the place of experiment, with that in other places, I have no reaſon to ſuppoſe, that its general deſcent exceeds it *.

The medium rate of motion of the Ganges is leſs than three miles an hour in the dry months. In the wet ſeaſon, and during the draining off the waters from the inundated lands, the current runs from five to ſix miles an hour; but there are inſtances of its running ſeven, and even eight miles, in particular ſituations, and under certain circumſtances. I have an experiment of my own on record, in which my boat was carried 56 miles in eight hours; and that againſt ſo ſtrong a wind, that the boat had evidently no progreſſive motion through the water.

When we conſider, that the velocity of the ſtream is three miles in one ſeaſon, and five or more in the other, on the ſame deſcent of four inches *per* mile; and, that the motion of the inundation is only half a mile *per* hour, on a much greater deſcent; no farther

* M. DE CONDAMINE found the deſcent of the river Amazons, in a ſtraight courſe of about 1860 miles, to be about 1020 Engliſh feet, or $6\frac{1}{3}$ inches in a mile. If we allow for the windings (which in the Ganges are about one mile and $\frac{1}{9}$ in 3, taking its whole courſe through the plains) it probably would not exceed 4 inches in a mile.

proof is required how ſmall the proportion of velocity is, that the deſcent communicates. It is then, to the *impetus* originating at the ſpring head, or at the place where adventitious waters are poured in, and ſucceſſively communicated to every part of the ſtream, that we are principally to attribute the velocity, which is greater or leſſer, according to the quantity of water poured in.

In common, there is found on one ſide of the river an almoſt perpendicular bank, more or leſs elevated above the ſtream, according to the ſeaſon, and with deep water near it: and on the oppoſite ſide a bank, ſhelving away ſo gradually as to occaſion ſhallow water at ſome diſtance from the margin. This is more particularly the caſe in the moſt winding parts of the river, becauſe the very operation of winding produces the ſteep and ſhelving banks *: for the current is always ſtrongeſt on the external ſide of the curve formed by the ſerpentine courſe of the river; and its continual action on the banks either undermines them †, or waſhes them down. In places where the current is remarkably rapid, or the ſoil uncommonly looſe, ſuch tracts of land are ſwept away in the courſe of one ſeaſon, as would aſtoniſh thoſe who have not been eye-witneſſes to the magnitude and force of the mighty ſtreams occaſioned by the periodical rains of the tropical regions. This neceſſarily produces a gradual change in the courſe of the river; what is loſt on one ſide being gained on the other, by the mere operation of the ſtream: for the fallen pieces of the bank diſſolve quickly into muddy ſand, which is hurried away by the current along the border of the channel, to the point from whence the river turns off to form the next reach;

* Hence it is, that the ſection of a river, that winds through a looſe ſoil, approaches nearly to an obtuſe angled-triangle, one of whoſe ſides is exceedingly ſhort and diſproportioned to the other two. But when a river perſeveres in a ſtraight courſe, the ſection becomes nearly the half of an ellipſis divided longitudinally. See Plate I.

† In the dry ſeaſon ſome of theſe banks are more than 30 feet high, and often fall down in pieces of many tons weight, and occaſion ſo ſudden and violent an agitation of the water, as ſometimes to ſink large boats that happen to be near the ſhore.

where

where the ſtream growing weak, it finds a reſting place: and helps to form a ſhelving bank, which commences at the point, and extends downwards, along the ſide of the ſucceeding reach.

To account for the ſlackneſs of the current at the point, it is neceſſary to obſerve, that the ſtrongeſt part of it, inſtead of turning ſhort round the point, preſerves for ſome time the direction given it by the laſt ſteep bank: and is accordingly thrown obliquely acroſs the bed of the river to the bay on the oppoſite ſide, and purſues its courſe along it, till the intervention of another point again obliges it to change ſides. See plate I.

In thoſe few parts of the river that are ſtraight, the banks undergo the leaſt alteration *, as the current runs parallel to them; but the leaſt inflection of courſe, has the effect of throwing the current againſt the bank; and if this happens in a part where the ſoil is compoſed of looſe ſand, it produces in time a ſerpentine winding.

It is evident, that the repeated additions made to the ſhelving bank before mentioned, become in time an encroachment on the channel of the river; and this is again counter-balanced by the depredations made on the oppoſite ſteep bank, the fragments of which either bring about a repetition of the circumſtances above recited, or form a bank or ſhallow in the midſt of the channel. Thus a ſteep and a ſhelving bank are alternately formed in the crooked parts of the river (the ſteep one being the *indented* ſide, and the ſhelving one the *projecting*); and thus, a continual fluctuation of courſe is induced in all the winding parts of the river; each meander having a perpetual tendency to deviate more and more from the line of the general courſe of the river, by eating deeper into the bays, and at the ſame time adding to the points; till either the oppoſite bays

* It is more than probable, that the ſtraight parts owe their exiſtence to the tenacity of the ſoil of which their banks are compoſed. Whatever the cauſe may be, the effect very clearly points out ſuch ſituations as the propereſt for placing towns in.

meet,

meet, or the ſtream breaks through the narrow iſthmus, and reſtores a temporary ſtraightneſs to the channel.

Several of the windings of the Ganges and its branches are faſt approaching to this ſtate; and in others, it actually exiſts at preſent. The experience of theſe changes ſhould operate againſt attempting canals of any length, in the higher parts of the country; and I much doubt, if any in the lower parts would long continue navigable. During eleven years of my reſidence in Bengal, the outlet or head of the Jellinghy river was gradually removed three quarters of a mile farther down: and by two ſurveys of a part of the adjacent bank of the Ganges, taken about the diſtance of nine years from each other, it appeared that the breadth of an Engliſh mile and a half had been taken away. This is, however, the moſt rapid change that I have noticed; a mile in ten or twelve years being the uſual rate of incroachment, in places where the current ſtrikes with the greateſt force; namely, where two adjoining reaches approach neareſt to a right angle. In ſuch ſituations it not unfrequently excavates gulfs * of conſiderable length within the bank. Theſe gulfs are in the direction of the ſtrongeſt parts of the ſtream; and are, in fact, the *young ſhoots* (if I may ſo expreſs myſelf) which in time ſtrike out and become branches of the river: for we generally find them at thoſe turnings that have the ſmalleſt angles †.

Two cauſes, widely different from each other, occaſion the meandering courſes of rivers; the one, the irregularity of the ground through which they run, which obliges them to wander in queſt of a declivity; the other, the looſeneſs of the ſoil, which yields

* The Count DE BUFFON adviſes the digging of ſuch gulfs in the banks of ordinary rivers, with a view to divert the current, when bridges or other buildings are endangered by it.

† The courſes of theſe branches at the efflux, generally, if not always, become retrograde to the courſe of the river; for, a ſand bank accumulating at the upper point of ſeparation, gives an oblique direction upwards; to the ſtream, which would otherwiſe run out at right angles. This ſand bank being always on the increaſe, occaſions a corroſion of the oppoſite bank; and by this means all, or moſt of the outlets, have a progreſſive motion downwards; as I have before remarked of the Jellinghy river, in the foregoing page.

to

to the friction of the border of the stream. The meanders in the first case, are, of course, as digressive and irregular as the surface they are projected on: but, in the latter, they are so far reducible to rule, that rivers of unequal bulk will, under similar circumstances, take a circuit to wind in, whose extent is in proportion to their respective breadths: for I have observed, that when a branch of the Ganges is fallen so low as to occupy only a part of its bed, it no longer continues in the line of its old course; but works itself a new channel, which winds from side to side across the former one. I have observed too, that in two streams, of equal size, that which has the slowest current has also the smallest windings: for as these (in the present case) are solely owing to the depredations made on the banks, by the force of the current; so the extent of these depredations, or, in other words, the dimensions of the windings, will be determined by the degree of force acting on the banks.

The windings of the Ganges in the plains, are, doubtless, owing to the looseness of the soil: and (I think) the proof of it is, that they are perpetually changing; which those, originally induced by an inequality of surface, can seldom, or never do *.

I can easily suppose, that if the Ganges was turned into a straight canal, cut through the ground it now traverses in the most winding parts of its course, its straightness would be of short duration. Some yielding part of the bank, or that which happened to be the most strongly acted on, would first be corroded or dissolved: thus a bay or cavity would be formed in the side of the bank. This begets an inflection of the current, which, falling obliquely on the side of the bay, corrodes it incessantly. When the current has passed the innermost part of the bay, it receives a new direction, and

* It has been remarked, that the courses of rivers become more winding as they approach the sea. This, I believe, will only hold good in such as take the latter part of their course through a sandy soil. In the Ganges, and other rivers subject to considerable variations in the bulk of their streams, the best marks of the vicinity of the sea, are, the lowness of the river banks, and the increasing muddiness of the shallows in its bed.

is

is thrown obliquely towards the oppoſite ſide of the canal, depoſiting in its way the matter excavated from the bay, and which begins to form a ſhallow or bank contiguous to the border of the canal. Here then is the origin of ſuch windings as owe their exiſtence to the nature of the ſoil. The bay, ſo corroded, in time becomes large enough to give a new direction to the body of the canal: and the matter excavated from the bay, is ſo diſpoſed as to aſſiſt in throwing the current againſt the oppoſite bank; where a proceſs, ſimilar to that I have been deſcribing, will be begun.

The action of the current on the bank will alſo have the effect of deepening the border of the channel near it; and this again increaſes the velocity of the current in that part. Thus would the canal gradually take a new form, till it became what the river now is. Even when the windings have leſſened the deſcent one half, we ſtill find the current too powerful for the banks to withſtand it.

There are not wanting inſtances of a total change of courſe in ſome of the Bengal rivers *. The Coſa river (equal to the Rhine) once ran by Purneah, and joined the Ganges oppoſite Rajemal. Its junction is now 45 miles higher up. Gour, the ancient capital of Bengal, ſtood on the old bank of the Ganges: although its ruins are 4 or 5 miles from the preſent bank.

Appearances favour very ſtrongly the opinion, that the Ganges had its former bed in the tract now occupied by the lakes and moraſſes between Nattore and Jaffiergunge, ſtriking out of its preſent courſe at Bauleah, and paſſing by Pootyah. With an equal degree of probability (favoured by tradition) we may trace its ſuppoſed courſe by Dacca, to a junction with the Burrampooter or Megna near Fringybazar; where the accumulation of two ſuch mighty ſtreams, probably ſcooped out the preſent amazing bed of the MEGNA †. See plate II.

* The Mootyjyl lake is one of the windings of a former channel of the Coſſimbuzar river.

† *Megna* and *Burrampooter* are names belonging to the ſame river in different parts of its courſe. The Megna falls into the Burrampooter; and, though a much ſmaller river, communicates its name to the other during the reſt of its courſe.

In tracing the ſea coaſt of the delta, we find no leſs than eight openings; each of which, without heſitation, one pronounces to have been in its time the principal mouth of the Ganges. Nor is the occaſional deviation of the principal branch, probably, the only cauſe of fluctuation in the dimenſions of the delta. One obſerves that the deltas of moſt capital rivers (the tropical ones particularly) encroach upon the ſea. Now, is not this owing to the mud and ſand brought down by the rivers, and gradually depoſited, from the remoteſt ages down to the preſent time? The rivers, we know, are loaded with mud and ſand at their entrance into the ſea; and we alſo know, that the ſea recovers its tranſparency at the diſtance of twenty leagues from the coaſt; which can only ariſe from the waters having precipitated their earthy particles within that ſpace. The ſand and mud banks at this time, extend twenty miles off ſome of the iſlands in the mouths of the Ganges and Burrampooter; and riſe in many places within a few feet of the ſurface. Some future generation will probably ſee theſe banks riſe above water, and ſucceeding ones poſſeſs and cultivate them! Next to earthquakes, perhaps the floods of the tropical rivers produce the quickeſt alterations in the face of our globe. Extenſive iſlands are formed in the channel of the Ganges, during an interval far ſhort of that of a man's life; ſo that the whole proceſs is completed in a period that falls within the compaſs of his obſervation*. Some of theſe iſlands, four or five miles in extent, are formed at the angular turnings of the river, and were originally large ſand banks thrown up round the points (in the manner before deſcribed) but afterwards inſulated by breaches of the river. Others are formed in the ſtraight parts of the river, and in the middle of the ſtream; and owe their origin to ſome obſtruction lurking at the bottom. Whether this be the fragments of the river bank; a large tree ſwept down from it; or

* Accordingly, the laws reſpecting alluvion are aſcertained with great preciſion.

a ſunken

a ſunken boat; it is ſufficient for a foundation: and a heap of ſand is quickly collected below it. This accumulates amazingly faſt: in the courſe of a few years it peeps above water, and having now uſurped a conſiderable portion of the channel, the river borrows on each ſide to ſupply the deficiency in its bed; and in ſuch parts of the river we always find ſteep banks on both ſides *. Each periodical flood brings an addition of matter to this growing iſland; increaſing it in height as well as extenſion, until its top is perfectly on a level with the banks that include it: and at that period of its growth it has mould enough on it for the purpoſes of cultivation, which is owing to the mud left on it when the waters ſubſide, and is indeed a part of the economy which nature obſerves in fertilizing the lands in general.

While the river is forming new iſlands in one part, it is ſweeping away old ones in other parts. In the progreſs of this deſtructive operation, we have opportunities of obſerving, by means of the ſections of the falling bank, the regular diſtribution of the ſeveral *ſtrata* of ſand and earths, lying above one another in the order in which they decreaſe in gravity. As they can only owe this diſpoſition to the agency of the ſtream that depoſited them, it would appear, that theſe ſubſtances are ſuſpended at different heights in the ſtream, according to their reſpective gravities. We never find a ſtratum of earth under one of ſand; for the muddy particles float neareſt the ſurface †. I have counted ſeven diſtinct ſtrata in a ſection of one of theſe iſlands. Indeed, not only the iſlands, but moſt of the river banks wear the ſame appearance: for as the river is always changing its preſent bed, and verging towards the ſite of ſome former one now obliterated, this muſt neceſſarily be the caſe.

* This evidently points out the means for preventing encroachments on a river bank in the ſtraight parts of its courſe, *viz.* to remove the ſhallows that accumulate in the middle of its channel.

† A glaſs of water taken out of the Ganges, when at its height, yields about one part in four of mud. No wonder then that the ſubſiding waters ſhould quickly form a ſtratum of earth; or that the delta ſhould encroach upon the ſea!

As a ſtrong preſumptive proof of the wandering of the Ganges from the one ſide of the delta to the other, I muſt obſerve, that there is no appearance of *virgin* earth between the Tiperah Hills on the eaſt, and the province of Burdwan on the weſt; nor on the north till we arrive at Dacca and Bauleah. In all the ſections of the numerous creeks and rivers in the delta, nothing appears but ſand and black mould in regular ſtrata, till we arrive at the clay that forms the lower part of their beds. There is not any ſubſtance ſo coarſe as gravel either in the delta or nearer the ſea than 400 miles *, where a rocky point, a part of the baſe of the neighbouring hills, projects into the river: but out of the vicinity of the great rivers the ſoil is either red, yellow, or of a deep brown.

I come now to the particulars of the annual ſwelling and overflowing of the Ganges †.

It appears to owe its increaſe as much to the rain water that falls in the mountains contiguous to its ſource, and to the ſources of the great northern rivers that fall into it, as to that which falls in the plains of Hindooſtan; for it riſes fifteen feet and a half out of thirty-two (the ſum total of its riſing) by the latter end of June: and it is well known, that the rainy ſeaſon does not begin in moſt of the flat countries till about that time. In the mountains it begins early in ‡ April; and by the latter end of that month, when the rain water has reached Bengal, the rivers begin to riſe, though by very ſlow degrees; for the increaſe is only about an inch *per*

* At Oudanulla.

† An opinion has long prevailed, that the ſwelling of the Ganges, previous to the commencement of the rainy ſeaſon in the flat countries, is in a great meaſure owing to the melting of the ſnow in the mountains. I will not go ſo far as totally to diſallow the fact; but can by no means ſuppoſe, that the quantity of ſnow water bears any proportion to the increaſe of the river.

‡ The vaſt collection of vapours, wafted from the ſea by the ſoutherly or ſouth-weſt monſoon, are ſuddenly ſtopped by the lofty ridge of mountains that runs from eaſt to weſt through Thibet. It is obvious, that the accumulation and condenſation of theſe vapours, muſt firſt happen in the neighbourhood of the obſtacle; and ſucceſſively in places more remote, as freſh ſupplies arrive to fill the atmoſphere. Hence the priority of commencement of the rainy ſeaſon in places that lie neareſt the mountains.

day

day for the firſt fortnight. It then gradually augments to two and three inches before any quantity of rain falls in the flat countries; and when the rain becomes general, the increaſe on a medium is five inches *per* day. By the latter end of July all the lower parts of Bengal, contiguous to the Ganges and Burrampooter, are overflowed, and form an inundation of more than a hundred miles in width; nothing appearing but villages and trees, excepting very rarely the top of an elevated ſpot (the artificial mound of ſome deſerted village) appearing like an iſland.

The inundations in Bengal differ from thoſe in Egypt in this particular, that the Nile owes its floods *entirely* to the rain-water that falls in the mountains near its ſource; but the inundations in Bengal are as much occaſioned by the rain that falls there, as by the waters of the Ganges; and as a proof of it, the lands in general are overflowed to a conſiderable height long before the bed of the river is filled. It muſt be remarked, that the ground adjacent to the river bank, to the extent of ſome miles, is conſiderably higher than the reſt of the country *, and ſerves to ſeparate the waters of the inundation from thoſe of the river until it overflows. This high ground is in ſome ſeaſons covered a foot or more; but the height of the inundation within, varies, of courſe, according to the irregularities of the ground, and is in ſome places twelve feet.

Even when the inundation becomes general, the river ſtill ſhews itſelf, as well by the graſs and reeds on its banks, as by its rapid and muddy ſtream; for the water of the inundation acquires a blackiſh

All the rivers that are ſituated within the limits of the monſoons, or ſhifting trade winds, are ſubject to overflowings at annually ſtated periods, like the Ganges: and theſe periods return during the ſeaſon of the wind that brings vapours from the ſea (which in Bengal, &c. is the ſoutherly one) and this being periodical, the falls of rain muſt neceſſarily be ſo too.

The northerly wind, which blows only over the land, is dry; for no rain (except caſual ſhowers) falls during the continuance of that monſoon.

* This property of the bank is well accounted for by Count Buffon, who imputes it to the precipitation of mud made by the waters of the river, when it overflows. The inundation, ſays he, purifies itſelf as it flows over the plain; ſo that the precipitation muſt be greateſt on the parts neareſt to the margin of the river.

hue,

hue, by having been ſo long ſtagnant among graſs and other vegetables: nor does it ever loſe this tinge, which is a proof of the predominancy of the rain water over that of the river; as the ſlow rate of motion of the inundation (which does not exceed half a mile *per* hour) is of the remarkable flatneſs of the country.

There are particular tracts of lands, which, from the nature of their culture, and ſpecies of productions, requires leſs moiſture than others; and yet, by the lowneſs of their ſituation would remain too long inundated, were they not guarded by dikes or dams, from ſo copious an inundation as would otherwiſe happen, from the great elevation of the ſurface of the river above them. Theſe dikes are kept up at an enormous expence; and yet do not always ſucceed, for want of tenacity in the ſoil of which they are compoſed. It is calculated that the length of theſe dikes collectively, amounts to more than a 1000 Engliſh miles. Some of them, at the baſe, are equal to the thickneſs of an ordinary rampart. One particular branch of the Ganges, (navigable only during the rainy ſeaſon, but then equal to the Thames at Chelſea) is conducted between two of theſe dikes, for about 70 miles: and when full, the paſſengers in the boats, look down on the adjacent country, as from an eminence.

During the ſwoln ſtate of the river, the tide totally loſes its effect of counteracting the ſtream; and in a great meaſure that of ebbing and flowing, except very near the ſea. It is not uncommon for a ſtrong wind, that blows up the river for any continuance, to ſwell the waters two feet above the ordinary level at that ſeaſon: and ſuch accidents have occaſioned the loſs of whole crops of rice*. A very tragical event happened at Luckipour † in 1763, by a ſtrong

* The rice I ſpeak of is of a particular kind; for the growth of its ſtalk keeps pace with the increaſe of the flood at ordinary times, but is deſtroyed by a too ſudden riſe of the water. The harveſt is often reaped in boats. There is alſo a kind of graſs which overtops the flood in the ſame manner, and at a ſmall diſtance has the appearance of a field of the richeſt verdure.

† About fifty miles from the ſea.

gale

gale of wind conſpiring with a high ſpring tide, at a ſeaſon when the periodical flood was within a foot and half of its higheſt pitch. It is ſaid that the waters roſe ſix feet above the ordinary level. Certain it is, that the inhabitants of a conſiderable diſtrict, with their houſes and cattle, were totally ſwept away; and, to aggravate their diſtreſs, it happened in a part of the country which ſcarce produces a ſingle tree for a drowning man to eſcape to.

Embarkations of every kind traverſe the inundation: thoſe bound upwards, availing themſelves of a direct courſe and ſtill water, at a ſeaſon when every ſtream ruſhes like a torrent. The wind too, which at this ſeaſon blows regularly from the ſouth-eaſt *, favours their progreſs; inſomuch, that a voyage, which takes up nine or ten days by the courſe of the river when confined within its banks, is now effected in ſix. Huſbandry and grazing are both ſuſpended; and the peaſant traverſes in his boat, thoſe fields which in another ſeaſon he was wont to plow; happy that the elevated ſite of the river banks place the herbage they contain, within his reach, otherwiſe his cattle muſt periſh.

The following is a table of the gradual increaſe of the Ganges and its branches, according to obſervations made at Jellinghy and Dacca.

At Jellinghy.	Ft.	In.	At Dacca. Ft.	In.
In May it roſe - - -	6	0	2	4
June - - -	9	6	4	6
July - - -	12	6	5	6
In the firſt half of Auguſt -	4	0	1	11
	32	0	14	3

* Although in the gulf or bay of Bengal the monſoon blows from the S S W and S W, yet in the eaſtern and northern parts of Bengal it blows from the S E or E S E.

Theſe

These obſervations were made in a ſeaſon, when the waters roſe rather higher than uſual; ſo that we may take 31 feet for the medium of the increaſe.

It muſt be obſerved, that the Ganges riſes in a more conſiderable degree than the northern rivers that communicate with it, in the lower parts of its courſe (the Burrampooter excepted) and this is evident by the different circumſtances that take place on the mixing of the waters of the Ganges and Teeſta rivers, in the different ſeaſons. The Teeſta is a large river which runs almoſt parallel to the Ganges, for near 150 miles. During the dry ſeaſon, the waters of the Teeſta run into thoſe of the Ganges by two diſtinct channels, ſituated about 20 miles from each other; and a third channel at the ſame time diſcharges itſelf into the Megna. But during the ſeaſon of the floods, the Ganges runs into the Teeſta, whoſe outlet is then confined to the channel that communicates with the Megna. This alone, is ſufficient to ſhew how trifling the deſcent of theſe rivers muſt be, whoſe courſes are thus regulated (not by the declivity of their beds, but) by their heights in reſpect to each other; which, like the flux and reflux of the tide, have the effect of giving contrary directions to the ſtream, at different ſeaſons.

The inundation is nearly at a ſtand for ſome days preceding the middle of Auguſt, when it begins to run off; for although great quantities of rain fall in the flat countries, during Auguſt and September, yet, by a partial ceſſation of the rains in the mountains, there happens a deficiency in the ſupplies neceſſary to keep up the inundation *. The quantity of the daily decreaſe of the river is nearly in the following proportion; during the latter half of Auguſt, and all September, from three to four inches; from Septem-

* I have ſtated the middle of Auguſt for the period when the waters begin to run off; and in general it happens with as much regularity as the viciſſitudes of the ſeaſons do. But there are exceptions to it; for in the year 1774 the rivers kept up for near a month after the uſual time.

ber

ber to the end of November, it gradually leſſens from three inches to an inch and a half; and from November to the latter end of April, it is only half an inch *per* day at a medium. Theſe proportions muſt be underſtood to relate to ſuch parts of the river as are removed from the influence of the tides; of which more will be ſaid preſently. The decreaſe of the inundation does not always keep pace with that of the river, by reaſon of the height of the banks; but after the beginning of October, when the rain has nearly ceaſed, the remainder of the inundation goes off quickly by evaporation, leaving the lands highly manured, and in a ſtate fit to receive the ſeed, after the ſimple operation of plowing.

There is a circumſtance attending the increaſe of the Ganges, and which, I believe, is little known or attended to; becauſe few people have made experiments on the heights to which the periodical flood riſes in different places. The circumſtance I allude to, is, the difference of the quantity of the increaſe (as expreſſed in the foregoing table) in places more or leſs remote from the ſea. It is a fact, confirmed by repeated experiments, that from about the place where the tide commences, to the ſea, the height of the periodical increaſe diminiſhes gradually, until it totally diſappears at the point of confluence. Indeed, this is perfectly conformable to the known laws of fluids: the ocean preſerves the ſame level at all ſeaſons (under ſimilar circumſtances of tide) and neceſſarily influences the level of all the waters that communicate with it, unleſs precipitated in the form of a cataract. Could we ſuppoſe, for a moment, that the increaſed column of water, of 31 feet perpendicular, was continued all the way to the ſea, by ſome preternatural agency: whenever that agency was removed, the head of the column would diffuſe itſelf over the ocean, and the remaining part would follow, from as far back as the influence of the ocean extended; forming a ſlope, whoſe perpendicular height would be 31 feet. This is the preciſe ſtate in which we find it. At the point of junction with the

ſea, the height is the ſame in both ſeaſons at equal times of the tide. At Luckipour there is a difference of about ſix feet between the heights in the different ſeaſons; at Dacca, and places adjacent, 14; and at Cuſtee, 31 feet. Here then is a regular ſlope; for the diſtances between the places bear a proportion to the reſpective heights. This ſlope muſt add to the rapidity of the ſtream; for, ſuppoſing the deſcent to have been originally four inches *per* mile, this will increaſe it to about five and a half. Cuſtee is about 240 miles from the ſea, by the courſe of the river; and the ſurface of the river there, during the dry ſeaſon, is about 80 feet above the level of the ſea at high water *. Thus far does the ocean manifeſt its dominion in both ſeaſons: in the one by the ebbing and flowing of its tides; and in the other by depreſſing the periodical flood, till the ſurface of it coincides as nearly with its own, as the deſcent of the channel of the river will admit †.

Similar circumſtances take place in the Jellinghy, Hoogly, and Burrampooter rivers; and, I ſuppoſe, in all others that are ſubject either to periodical or occaſional ſwellings.

Not only does the flood diminiſh near the ſea, but the river banks diminiſh in the ſame proportion; ſo that in the dry ſeaſon the height of the periodical flood may be known by that of the bank.

I am aware of an objection that may be made to the above ſolution; which is, that the lowneſs of the banks in places near the ſea, is the true reaſon why the floods do not attain ſo conſiderable a height

* The tides in the river Amazons are perceptible at 600 miles above its mouth; but at an elevation of only 90 feet, according to M. De Condamine. It remains to be told what the ſtate of the river was at the time of making the experiment; becauſe the land-floods have the effect of ſhortening the limits of the tide's way.

† The Count De Buffon has ſlightly mentioned this circumſtance attending the ſwelling of rivers; but imputes it to the increaſed velocity of the current, as the river approaches the ſea: which, ſays he, carries off the inundation ſo quick, as to abate its height. Now (with the utmoſt deference to ſo great an authority) I could never perceive, that the current, either in the Ganges, or any other river, was ſtronger near the ſea than at a diſtance from it. Even if we admit an acceleration of the current during the ebb-tide, the flux retards it in ſo conſiderable a degree, as at leaſt to counter-balance the effects produced by the temporary increaſe of velocity.

height, as in places farther removed from it, and where the banks are high; for that the river, wanting a bank to confine it, diffuses itself over the surface of the country. In answer to this, I shall observe, that it is proved by experiment, that at any given time, the quantity of the increase in different places, bears a just proportion to the sum total of the increase in each place respectively: or, in other words, that when the river has risen three feet at Dacca, where the whole rising is about 14 feet; it will have rose upwards of six feet and a half at Custee, where it rises 31 feet in all.

The quantity of water discharged by the Ganges, in one second of time, during the dry season, is 80,000 cubic feet; but the river, when full, having thrice the volume of water in it that it had at the time when the experiment was made; and its motion being also accelerated in the proportion of 5 to 3; the quantity discharged in a second at that season is 405,000 cubic feet. If we take the medium the whole year through, it will be nearly 180,000 cubic feet in a second.

THE BURRAMPOOTER, which has its source from the opposite side of the same mountains that give rise to the Ganges, first takes its course eastward (or directly opposite to that of the Ganges) through the country of Thibet, where it is named *Sanpoo* or *Zanciu*, which bears the same interpretation as the Gonga of Hindoostan; namely, THE RIVER. The course of it through Thibet, as given by Father DU HALDE, and formed into a map by Mr. D'ANVILLE, though sufficiently exact for the purposes of general geography, is not particular enough to ascertain the precise length of its course. After winding with a rapid current through Thibet, it washes the

border of the territory of Laſſa (in which is the reſidence of the grand Lama) and then deviating from an eaſt to a ſouth-eaſt courſe, it approaches within 220 miles of Yunan, the weſternmoſt province of China. Here it appears, as if undetermined whether to attempt a paſſage to the ſea by the Gulf of Siam, or by that of Bengal; but ſeemingly determining on the latter, it turns ſuddenly to the weſt through Aſſam, and enters Bengal on the north-eaſt. I have not been able to learn the exact place where it changes its name; but as the people of Aſſam call it Burrampoot, it would appear, that it takes this name on its entering Aſſam. After its entry into Bengal, it makes a circuit round the weſtern point of the Garrow Mountains; and then, altering its courſe to ſouth, it meets the Ganges about 40 miles from the ſea.

Father DU HALDE expreſſes his doubts concerning the courſe that the Sanpoo takes after leaving Thibet, and only ſuppoſes generally that it falls into the gulf of Bengal. M. D'ANVILLE, his geographer, not without reaſon, ſuppoſed the Sanpoo and Ava river to be the ſame; being juſtified by the information which his materials afforded him: for the Burrampooter was repreſented to him, as one of the inferior ſtreams that contributed its waters to the Ganges, and not as its equal or ſuperior; and this was ſufficient to direct his reſearches, after the mouth of the Sanpoo river, to ſome other quarter. The Ava river, as well from its bulk, as the bent of its courſe for ſome hundred miles above its mouth, appeared to him to be a continuation of the river in queſtion: and it was accordingly deſcribed as ſuch in his maps, the authority of which was juſtly eſteemed as deciſive; and, till the year 1765, the Burrampooter, as a capital river, was unknown in Europe.

On tracing this river in 1765, I was no leſs ſurprized, at finding it rather larger than the Ganges, than at its courſe previous to its entering Bengal. This I found to be from the eaſt; although all the former accounts repreſented it as from the north: and this unex-

expected discovery soon led to enquiries, which furnished me with an account of its general course to within 100 miles of the place were Du HALDE left the Sanpoo. I could no longer doubt, that the Burrampooter and Sanpoo were one and the same river: and to this was added the positive assurances of the Assamers, "That *their* "river came from the north-west, through the Bootan mountains." And to place it beyond a doubt, that the Sanpoo river is not the same with the river of Ava, but that this last is the great *Nou Kian* of Yunan; I have in my possession a manuscript draught of the Ava river, to within 150 miles of the place where Du HALDE leaves the Nou Kian, in its course towards Ava; together with very authentic information that this river (named *Irabattey* by the people of Ava) is navigable from the city of Ava into the province of Yunan in China*.

The Burrampooter, during a course of 400 miles through Bengal, bears so intimate a resemblance to the Ganges, except in one particular, that one description may serve for both. The exception I mean, is, that during the last 60 miles before its junction with the Ganges, it forms a stream which is regularly from four to five miles wide, and but for its freshness might pass for an arm of the sea. Common description fails in an attempt to convey an adequate idea of the grandeur of this magnificent object; for,

—— Scarce the muse
Dares stretch her wing o'er this enormous mass
Of rushing water; to whose dread expanse,
Continuous depth, and wond'rous length of course,
Our floods are rills ————

THOMSON's Seasons.

* My information comes from a person who had resided at Ava. See the Memoir, page 216, and also the Modern Universal History, vol 6, page 205. The courses of the Burrampooter and Ganges, as well as that of the Ava river from Yunan to the sea, are described in the map of HINDOOSTAN.

I have

I have already endeavoured to account for the ſingular breadth of the Megna, by ſuppoſing that the Ganges once joined it where the Iſſamutty now does; and that their joint waters ſcooped out its preſent bed. The preſent junction of theſe two mighty rivers below Luckipour, produces a body of running freſh water, hardly to be equalled in the old hemiſphere; and, perhaps, not exceeded in the new. It now forms a gulf interſperſed with iſlands, ſome of which rival, in ſize and fertility, our iſle of Wight. The water at ordinary times is hardly brackiſh at the extremities of theſe iſlands; and, in the rainy ſeaſon, the ſea (or at leaſt the ſurface of it) is perfectly freſh to the diſtance of many leagues out.

The *bore* (which is known to be a ſudden and abrupt influx of the tide into a river or narrow ſtrait) prevails in the principal branches of the Ganges, and in the Megna; but the Hoogly river, and the paſſages between the iſlands and ſands ſituated in the gulf, formed by the confluence of the Ganges and Megna, are more ſubject to it than the other rivers. This may be owing partly, to their having greater *embouchures* in proportion to their channels, than the others have, by which means a larger proportion of tide is forced through a paſſage comparatively ſmaller, and partly, to there being no capital openings near them, to draw off any conſiderable portion of the accumulating tide. In the Hoogly or Calcutta river, the *bore* commences at Hoogly Point (the place where the river firſt contracts itſelf) and is perceptible above Hoogly town; and ſo quick is its motion, that it hardly employs four hours in travelling from one to the other, although the diſtance is near 70 miles. At Calcutta, it ſometimes occaſions an inſtantaneous riſe of five feet: and both here, and in every other part of its track, the boats, on its approach, immediately quit the ſhore, and make for ſafety to the middle of the river.

In the channels, between the iſlands in the mouth of the Megna, &c. the height of the *bore* is ſaid to exceed twelve feet; and is ſo ter-

terrific in its appearance, and dangerous in its conſequences, that no boat will venture to paſs at ſpring tide. After the tide is fairly paſt the iſlands, no veſtige of a *bore* is ſeen, which may be owing to the great width of the Megna, in compariſon with the paſſages between the iſlands; but the effects of it are viſible enough, by the ſudden riſing of the tides.

THE rivers are in a tranquil ſtate, from the time of the change of the monſoon in October, to the middle of March; when the *northweſters* begin in the eaſtern parts of BENGAL (though later as we advance weſtwards) and may be expected once in three or four days until the commencement of the rainy ſeaſon. Theſe *northweſters*, which have their denomination from the quarter they uſually originate in, are the moſt formidable enemies that are met with in this inland navigation; they being ſudden and violent ſqualls of wind and rain; and though of no long duration, are often attended with fatal effects, if not carefully guarded againſt; whole fleets of trading-boats having been ſunk by them, almoſt inſtantaneouſly. They are more frequent in the eaſtern, than in the weſtern part of BENGAL; and happen oftner towards the cloſe of the day, than at any other time. As they are indicated ſome hours before they arrive, by the riſing and very ſingular appearance of the clouds, the traveller has commonly time enough to ſeek a place of ſhelter. It is in the great rivers alone, that they are ſo truely formidable: and that about the latter end of May, and beginning of June, when the rivers are much increaſed in width.

After the commencement of the rainy ſeaſon (which period varies in different parts, from the middle, to the end of June) tempeſtuous weather muſt be occaſionally expected. Places of ſhelter are more

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common at this ſeaſon, than at any other, by the filling of the creeks and inlets, as the river increaſes: and, on the other hand, the bad weather, when it happens, is of longer continuance than during the ſeaſon of the northweſters. The rivers being now ſpread to the breadth of ſeveral miles, a ſtrong wind has the power of raiſing large waves on them, and particularly when blowing in a contrary direction to the rapid parts of the ſtream; which at ſuch times ſhould be avoided, as much from motives of conveniency, as of ſafety.

During the long interval between the end of the rainy ſeaſon, and the beginning of the northweſters, one proceeds in ſecurity with reſpect to weather, and has only to obſerve a common degree of attention to the piloting the boat clear of ſhallows, and ſtumps of trees. Theſe will generally be avoided by keeping neareſt to the ſide that has the ſteep bank; but not ſo near, as to be within the verge of its inferior ſlope. This ſteep bank (ſee page 261) has the deepeſt water, and the ſtrongeſt current near it; and is therefore, on both accounts, the proper ſide to keep on, when going down with the ſtream; as its rate of motion muſt principally determine that of the boat; for the motion acquired by the oars of a large *budgerow* * hardly exceeds 8 miles a day, at ordinary times.

From the beginning of November to the middle or latter end of May, the uſual rate of going *with* the ſtream, is forty miles in a day of 12 hours; and during the reſt of the year, from 50 to 70 miles. The current is ſtrongeſt while the waters of the inundation are draining off; which happens in part of Auguſt and September.

In many of the ſhallow rivers, the current is exceedingly ſlow during the dry months; inſomuch, that the track-rope is frequently uſed in going downwards.

* A travelling boat, conſtructed ſomewhat like a pleaſure-barge. Some have cabins 14 feet wide, and proportionably long; and draw from 4 to 5 feet water.

In

In towing *againſt* the ſtream, the ſteep ſide is alſo generally preferred, on account of the depth of water; although the current runs ſo much ſtronger there, than on the oppoſite ſide. On theſe occaſions, one ought to be provided with a very long track-rope, as well to avoid the falling pieces of the ſteep bank on the one ſide, as the ſhallow water on the other, when it becomes neceſſary to change ſides, through the badneſs of the tracking ground. The anchor ſhould always be kept ready for dropping, in caſe the track-rope breaks.

Seventeen, to twenty miles a day, according to the ground, and the number of impediments, is the greateſt diſtance that a large budgerow can be towed againſt the ſtream, during the fair ſeaſon; and to accompliſh this, the boat muſt be drawn at the rate of four miles and a half *per* hour, through the water, for 12 hours. When the waters are high, a greater progreſs will be made, notwithſtanding the increaſed velocity of the current; becauſe the filling of the river-bed gives many opportunities of cutting off angles and turnings; and ſometimes even large windings, by going through creeks. And as the wind at this ſeaſon, blows upwards in moſt of the rivers, opportunities of uſing the ſail frequently occur.

In the very ſingular navigation acroſs the *Jeels*, or inundation, between Dacca and Nattore, &c. in which 100 miles or more, are ſailed on nearly a ſtraight courſe, leaving the villages and groves to the right and left; little difficulty occurs, unleſs the wind ſhould fail: for while it continues to blow, it is always fair, during the ſeaſon of the inundation. The current preſents only a trifling obſtacle; ſince its motion (which is nearly parallel to the courſe of the Ganges) is ſeldom half a mile per hour.

The ſeaſon of the *northweſters*, is, above all others, that which requires the moſt attention and care. Should one of thoſe ſqualls approach, and no creek or inlet offer for ſhelter, when in the wide

 rivers;

rivers; the ſteep bank, if not in a *crumbling* ſtate *, ſhould always be preferred to the flat one, whether it lie to windward or leeward. If the bank be in a crumbling ſtate, a retreat to a firm part of it, (which is moſt likely to be found in the ſtraighteſt parts of the river) ſhould be attempted. But if this cannot be done, the flat ſide muſt be taken up with; and if it be a *lee-ſhore*, the anchor ſhould be thrown out to prevent driving on it. In theſe caſes the maſt is always ſuppoſed to be ſtruck; and provided this be done, and the cargo judiciouſly diſpoſed, it is probable that a well-conſtructed budgerow will be in no danger of overſetting by the mere force of the wind alone: although by an unfortunate, or an ill-choſen ſituation, it may be ſo much expoſed to the waves, as to be filled and ſunk by them. At this ſeaſon, every traveller ſhould be particularly attentive to the nature of the river-bank, as well as to the appearance of the horizon, during the laſt hours of the afternoon; and if he finds a place of ſhelter, he ſhould ſtop for the night: and not heſitate about loſing time, which may be retrieved the next morning, by ſetting out ſo much earlier. The boatmen work with much more alacrity on this plan; becauſe they have day-light before them to ſecure their boat, provide fewel, and dreſs and eat their proviſions.

As the water is always either riſing or falling within the beds of the rivers, it is impoſſible for a map to aſſign preciſely where a place of ſhelter ſhall be found, at any given time. Thus much, however, may be concluded, that in a place where the junction of two conſiderable channels is effected when the rivers are up, there will be an inlet, or deep bay, throughout the dry ſeaſon, although one of the channels ſhould be dried up. The waters (as we have ſaid before) are riſing from the latter end of April, to the middle of Auguſt: and falling during the reſt of the year.

The navigation through THE WOODS, or SUNDERBUNDS, is effected chiefly by means of the tide. In the large rivers, or thoſe

* See page 207, and the ſecond note in the ſame page.

that

that communicate immediately with the ſea, the circumſtances of the tide are more analagous to the ordinary courſe of it, than in the ſmall lateral channels which ſerves to connect the great rivers together; the motion of the tide in thoſe ſmall channels, being regulated by the poſitions of their openings into the rivers. For if two rivers of equal bed and parallel courſe, are united by a lateral or croſs canal, the flood tide will enter that opening of the canal which lies neareſt to the ſea, and run through it into the other river; and the ebb tide *vice verſa*. But as the arrival of the tide depends on the capacity and formation of the rivers, as well as on the abſolute diſtance it has to run, it will not be an eaſy matter to determine its direction at any given time, even with the help of a map.

There are two diſtinct paſſages through the Sunderbunds, the one named the ſouthern or SUNDERBUND PASSAGE, the other the BALIAGOT PASSAGE. The firſt is the fartheſt about, and leads through the deepeſt and wideſt rivers; and is of courſe, the moſt expoſed during tempeſtuous weather. It opens into the Calcutta river, thro' Channel-creek *, about 65 miles below the town. The Baliagot Paſſage opens into a lake on the eaſt ſide of Calcutta; from whence, within a very few years, a ſmall canal has been cut to join the lake with the river.

Theſe paſſages preſent to the imagination both a grand and a curious ſpectacle: a navigation of more than 200 miles through a foreſt, divided into numberleſs iſlands by a continued labyrinth of channels, ſo various in point of width that a veſſel has at one time her maſts almoſt entangled in the trees: and at another, ſails uninterruptedly on a capacious river, beautifully ſkirted with woods, and affording a viſta of many miles each way. The water is every where ſalt; and the whole extent of the foreſt abandoned to wild beaſts: ſo that the ſhore is ſeldom viſited but in caſes of neceſſity; except

* A part of this Creek forms the place known of late by the name of NEW-HARBOUR.

6 by

by the wood-cutters and ſalt-makers whoſe "dreadful trade" is exercifed at the conſtant peril of their lives: for the tygers not only appear on the margin in queſt of prey, but often, in the night time, ſwim to the boats that lie at anchor in the middle of the river.

Theſe paſſages are uſed during the whole year, by thoſe who go to and from the lower parts of the Ganges and Calcutta, &c: and during the ſeaſon when the weſtern branch of the Ganges is almoſt dried up, the whole trade of Bengal (the weſtern provinces excepted) paſſes either by Channel-creek, or Baliagot, but chiefly by the former; ſome articles of the Company's cargoes being brought more than 900 miles by water, at this ſeaſon.

Explanation of PLATE, N°. I.

A. A. A. Steep Banks, corroded by the current; the fragments of which are depoſited, and form the Banks B. B. B.

C. A ſand Bank, accumulating to an Iſland. This once joined to D; till inſulated by a breach of the river.

E. An Iſland, formed and inhabited. This alſo was a ſand-bank, thrown up round the point F.

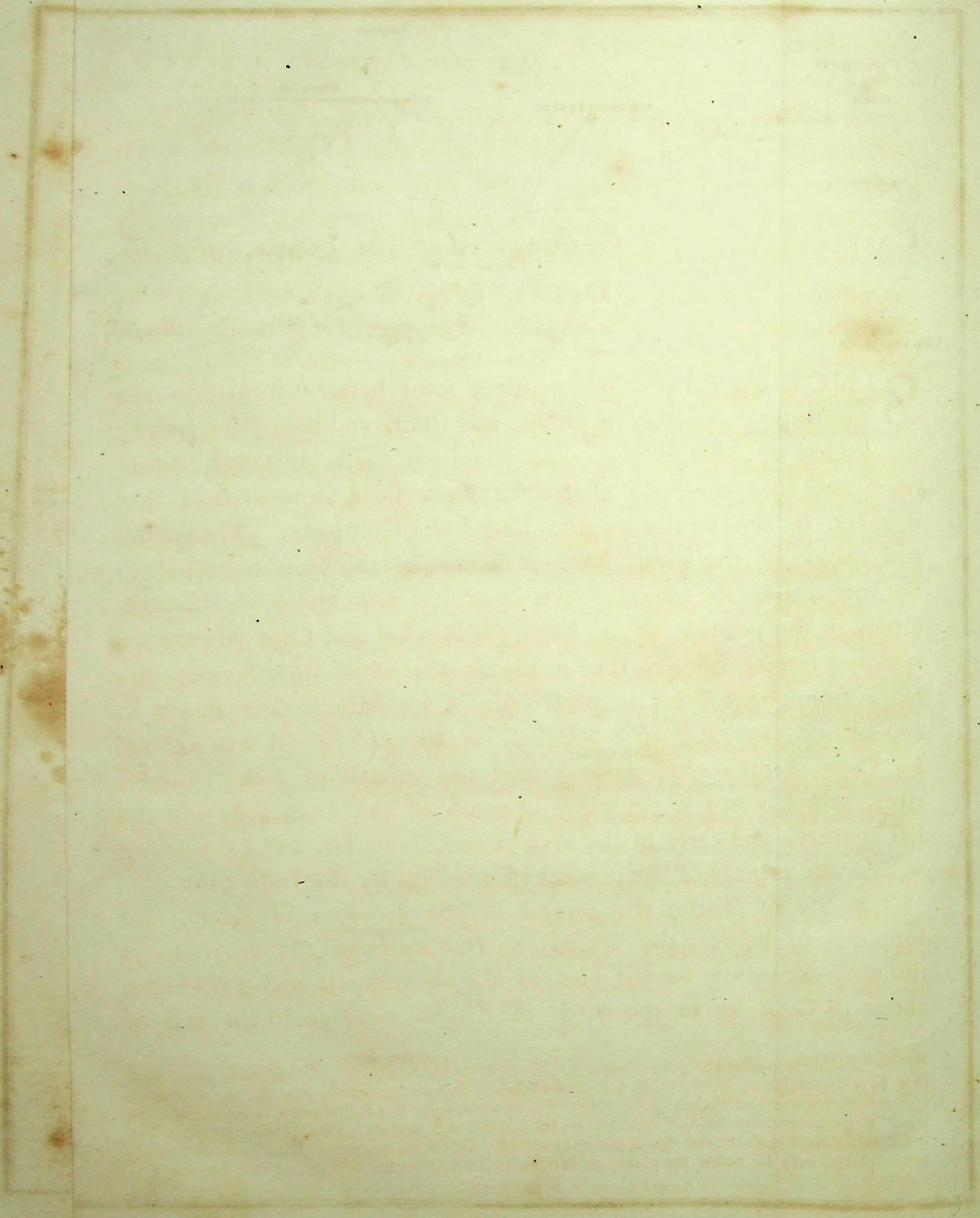
G. An Iſland accumulating in the midſt of the Channel.

H. The line of the ſtrongeſt current.

I. A Gulf occaſioned by the force of the current, from the oppoſite ſide, ſtriking againſt the Bank: the origin of a future branch iſſuing from the great river. In a courſe of time, the firſt reach of it becomes retrogade to the courſe of the river (ſee note, page 263) as at K and L.

N. B. The ſection of the Branch of the Ganges is exactly ſimilar to that of the Ganges itſelf, except in the article of width.

FYZABAD
Oude
ALLAHABAD
Coos Beyhar
Rangamatty
Burrampooter R.
Miles
Dacca
Silhet
Comillah
Tiperah
Nuldingah
Mahmudpour
Moorley
Luckipour
Islamabad
Megna
Ganges
W. Harrison sc

MAP of the INLAND NAVIGATION.
2
Explanation.
Cities. Capitals of Provinces. Towns & Villages.
Passages navigable throughout the Year.
do. navigable only part of the Year.
Extent of the annual Inundations.
Miles
10 20 30 40 50 100
FYZABAD
Oude
Goorackpour
Bettyah
Boggah
Gogra R.
Jionpour
ALLAHABAD
Benares
Gazypour
Chunargur
Ganges River
Buxar
Dynapour
PATNA
Hajypour
Durbungah
Saseram
Rotasgur
Gayah
Monghir
Boglipour
Rajemal
Purneah
Mauldah
Dinagepour
Rungpour
Coos Beyhar
Rangamatty
Goalparah
Burrampooter R.
Goragot
Silhet
Mahananda River
MOORSHEDABAD
Cossimbuzar
Burhampour
Nagore
Ramgur
Pachete
Burdwan
Bissunpour
Midnapour
Hoogly
CALCUTTA
Kishenagur
Nuddingah
Mahmudpour
Moorley
Dacca
Comillah
Luckipour
Islamabad
Tiperah
Megna River
Ganges
DELTA
Injellee
Published according to Act of Parliament by J. Rennell Jan 1st 1781.

POSTSCRIPT.

CORRECTION *of the* GEOGRAPHY *of the* INDUS, *and its* DELTA, *&c.*

SINCE the Memoir was printed, ſome better information reſpecting the country of Sindy, and the river Sinde * (or Indus) than what appears in page 80, has been moſt obligingly communicated by a perſon of character, who reſided ſome time in that country, in the ſervice of the Eaſt India Company. The delta, and courſe of the river, have in conſequence, been corrected in the map: but the *form* of the coaſt has undergone no change, although the poſition of it, has; for Ritchel and Cape Monze are removed ſeveral miles further to the ſouth, while their former diſtance from Jigat Point is preſerved. Cape Monze now ſtands in lat. 24° 55′, lon. 65° 46′: Ritchel, in lat. 24° 14′ (it was 24° 12′ by Capt. Scott's obſervations) and the mouth of Larry-Bunder river, which was the principal channel of the Indus, during the laſt century, and early in the preſent one, is in lat. 24° 44′; being within one minute of the parallel aſſigned it, by the India pilot.

The city of Tatta, the capital of the province of Sindy, and ſuppoſed to be near the ſite of the *Pattala* † of the ancients, is ſituated, according to the idea of the abovementioned gentleman, about 38 G. miles to the north of Ritchel, and 50 to the eaſt of

* Mr. Wilkins makes the proper name of this river to be *Seendhoo*. Heetopades, page 333.

† It is impoſſible to fix the exact ſite of Pattala, as there are properly two deltas, a ſuperior and an inferior one; excluſive of the many iſlands formed by the Indus when it approaches the ſea. Tatta is near the head of the *inferior* delta; and the ancient accounts mention only one great delta, having Pattala at the upper angle of it. In Ptolemy's map (Áſiæ Tab. XX) Pattala is placed very far below the place, where the Indus firſt begins to ſeparate into branches.

it

it: ſo that it ought to be in lat. 24° 50′, lon. 67° 37′; and about 125 miles from the ſea, by the courſe of the river *. According to M. Thevenot, it is three days journey from Larry-Bunder town; which according to Capt. Hamilton, is 5 or 6 leagues from the ſea. M. Thevenot's 3 days journey may be taken at 54 G. miles of horizontal diſtance; and the whole diſtance of Tatta, from the mouth of Larry-Bunder river, at about 68 G. miles: and this does not diſagree with the account given above.

According to a MS. itinerary (kept by N. Whittington, no date to it) Tatta is about 180 coſſes from Radimpour on the Puddar river: and 228 from Amedabad, paſſing through Radimpour. This laſt town is placed in the new map, chiefly on the authority of Mr. Hornby's MS. map of Guzerat, mentioned in page 149: and 180 coſſes, laid off from it, would place Tatta about 22 G. miles further to the weſt, than the poſition aſſigned it above, provided that the general direction of the road, was ſtraight: but it appears by the ideas of Janſen and Blaeu, who have ſeverally deſcribed this road, that it bends greatly to the ſouth; and therefore will accord very well with the above *data*: and it may be concluded, on the whole, that the longitudes of Tatta and of Cape Monze, are not far from the truth. The route in queſtion, goes by the village of Negar-Parkar, and by the town of Nuraquimire; and through part of the territory of Cutch: it croſſes the great ſandy deſert alſo.

It is not to be expected that any particular account of the number and poſitions of the ſeveral branches and mouths of the Indus, ſhould exiſt, unleſs a ſurvey of them had previouſly been made. All the information that I have been able to obtain on the ſubject,

* Theſe are the particulars: From Ritchel to Shahbunder, about 40 miles by the courſe of the river, the bearing, much eaſtwardly. Thence to Aurungabunder, 25 more (but by land only 10 or 12) the courſe ſomewhat more northwardly. Thence to Tatta, 60 miles, N N E, or N E b N. The windings of the river are ſuppoſed to reduce the diſtance, on a ſtraight line, to 63 G. miles. The latitude of Tatta, is ſuppoſed to be ſomething more than 24° 40′: the conſtruction, according to theſe *data*, makes it 24° 50′.

6 reſpects

respects three of them only; and is as follows. About 170 miles from the sea, by the course of the river, the Indus divides into two branches; of which the westernmost is by much the largest. This branch, after a course of about 50 miles, to the S W, divides into two more; the smallest of which runs on a W S W course, to Larry-Bunder, and Darraway: and the largest, taking the name of the Ritchel river, runs on a more southwardly course to the town or village of Ritchel, on the sea coast. (Tatta is situated within this inferior delta, and about five miles below the upper angle of it.) The third branch remains to be mentioned, and is that which bounds the eastern side of the superior delta; separating as is said above, at about 170 miles from the sea. It is smaller than the Ritchel river, but larger than that of Larry-Bunder; and by circumstances, and by report, it opens into the mouth of the gulf of Cutch, nearly opposite to Jigat Point; its course being somewhat to the eastward of south.

From these *data*, together with the aid of the chart of the coast, it may be collected, that the delta of the Indus is about 150 British miles in length, along the sea coast; and about 115 in depth, from the place of separation of the superior branches of the river, to the most prominent point of the sea coast. Arrian (after Nearchus) reckons the first distance 1800 * stadia; and Pliny 220 Roman miles: that is, he reckoned about 8 of those stades to a mile.

The lower part of this delta is intersected by rivers and creeks, in almost every direction, like the delta of the Ganges: but unlike that, it has no trees on it; the dry parts being covered with brushwood; and the remainder, by much the greatest part, being noisome swamps, or muddy lakes. A minaret, at the mouth of Ritchel river, serves for a mark for the road; which, from the flatness and sameness of the appearance of the coast, could not other-

* It appears from Strabo, that Aristobulus allowed only 1000 stadia for the basis of the delta.

wiſe be diſcriminated. The upper part of the delta is well cultivated, and yields abundance of rice.

From the ideas generally entertained concerning the nature, and treatment of camels, it would not be expected that this delta, and eſpecially that part of it, neareſt to the ſea, ſhould be ſet apart for the breeding of thoſe animals. It is, however the caſe ; and the tender parts of the bruſh-wood ſerve them for fodder.

It is a remarkable circumſtance that the tide ſhould not be viſible in this river, at a greater diſtance than 60 or 65 miles from the ſea. The *bores* are high and dangerous in the mouths of the river. (See the Introduction page xxiv.)

The breadth of the Ritchel branch is eſtimated at one mile, juſt above the tide: and at Tatta, at only half a mile *. It is certain that the Indus is very conſiderably leſs than the Ganges. The velocity of its current, is eſtimated at 4 miles *per* hour, in the dry ſeaſon ; which I ſhould ſuppoſe to be over-rated, unleſs the declivity be much more than I have an idea of: though indeed, the ſhort courſe of the tide, upwards, ſeems to require ſome ſuch cauſe.

The province of Sindy in many particulars of ſoil and climate, and in the general appearance of its ſurface, reſembles Egypt : the lower part of it being compoſed of rich vegetable mould, and extended into a wide delta ; while the upper part of it, is a narrow ſlip of country, confined on one ſide by a ridge, or ridges of mountains, and on the other by a ſandy deſert ; the river Indus, equal at leaſt to the Nile, winding through the midſt of this level valley, and annually overflowing it. During great part of the S W monſoon, or at leaſt in the months of July, Auguſt, and part of September, which is the rainy ſeaſon in moſt other parts of India, the atmoſphere, is here generally clouded, but no rain falls, except very near to the ſea. Indeed very few ſhowers fall during the

* Hamilton reckoned it a mile broad, in 1699 ; and ſays it was 6 fathom deep, and that the inundations are in April, May, and June.

whole

whole year. Capt. Hamilton ſays, that when he viſited Tatta, no rain had fallen for 3 years before. Owing to this, and to the neighbourhood of the ſandy deſerts, which bound it on the eaſt, and on the north-weſt, the heats are ſo violent, and the winds from thoſe quarters ſo pernicious, that the houſes are contrived ſo as to be occaſionally ventilated by means of apertures on the tops of them, reſembling the funnels of ſmall chimnies. When the hot winds prevail, the windows are cloſely ſhut, by which the hotteſt part of the current of air (that neareſt the ſurface, of courſe) is excluded: and a cooler part, becauſe more elevated, deſcends into the houſe, through the funnels. By this means alſo, vaſt clouds of duſt are excluded, the entry of which alone would be ſufficient to render the houſes uninhabitable. The roofs are compoſed of thick layers of earth, inſtead of terraces. Few countries are more unwholſome to European conſtitutions: particularly the lower part of the delta.

Sindy extends along the courſe of the Indus from its *embouchure* to Behker or Bhakor on the frontiers of Moultan; and may be reckoned at leaſt 300 B. miles in length, that way. Its breadth is very irregular: it may be about 160 miles in the wideſt part. On the N E, lie the territories of the Seiks; and on the north, thoſe of the King of Candahar; on the weſt is Makran *, a province of Perſia, whoſe Prince is tributary to the King of Candahar. A ſandy deſert bounds Sindy on the eaſt, and extends the whole way from the territory of Cutch, to the confines of Moultan; being near 550 B. miles in length, and from 100 to 150 wide. P. Wendell in his account of the Rajpoot's country (or Rajpootana) ſays, that the country begins to grow ſandy, immediately on the weſt of Agimere: ſo that the deſert muſt be exceedingly wide in that part. This is the ſandy deſert mentioned by Herodotus. See page xxii

* Makran, or Mocran, is the ancient GEDROSIA. One of its modern names is *Ketch* or *Kedge*, and is often prefixed to the other, as *Ketch-Makran*. If *Ketch* was in uſe anciently, it is likely to have given birth to the name *Gedroſia*.

of

of the Introduction. The fort of Ammercot, the retreat of the Emperor Humaioon, and the birth place of his ſon Acbar (page lvii) is ſituated within this deſert. In the Ayin Acbaree, it is claſſed as belonging to the Nuſſerpour diviſion, of the province of Sindy: Feriſhta reckons it about 100 coſſes from Tatta. It may reaſonably be ſuppoſed that this deſert contains many habitable tracts or iſlands, within it, like the OASES * of the Lybian deſerts.

The city of Tatta, the poſition of which we have deſcribed above, was, in the laſt century, very extenſive and populous, and was a place of great trade; poſſeſſing manufactures of ſilk, carmania wool, and cotton: and was alſo celebrated for its cabinet ware. Little of theſe now remain; and the limits of the city are very much circumſcribed. On the ſhores of the Indus, above the delta, conſiderable quantities of ſaltpetre are made: and within the hilly tract, which commences about three miles on the N W of Tatta, are found mines of iron, and ſalt. The ruins of a city, ſuppoſed to be Braminabad, lie within 4 miles of Tatta.

The river Indus and its branches, admit of an uninterrupted navigation from Tatta to Moultan, Lahore, and Caſhmere, for veſſels of near 200 tons; and a very extenſive trade was carried on between thoſe places, in the time of Aurungzebe: but at preſent very little of this trade remains, owing to a bad government in Sindy; and probably to the hoſtile diſpoſition of the Seiks, the preſent poſſeſſors of Moultan and Lahore. Capt. Hamilton ſays that boats came from Lahore to Tatta, in 12 days. Had Feroſe's canal been completed, there would have been an inland navigation from Tatta to Bengal, and Aſſam. (See page 72.)

The reader will recollect that Nadir Shah, in 1739, obtained a ceſſion of the province of Sindy, as well as the reſt of the Indian provinces, lying on the weſt of the Indus: and he even viſited

* See Savary's Letters on Egypt.

Tatta.

Tatta. Abdalla, when he ſeized on the provinces, which compoſe his preſent empire, retained the ſovereignty of Sindy alſo: and the Prince of this province, is accordingly, tributary to the preſent King of Candahar, Timur Shah *. The Prince is a Mahomedan, and of Abaſſynian extraction: his uſual place of reſidence is at the fort of Hydrabad, ſituated on the Indus, not far above the head of the delta; and in the neighbourhood of the city of Nuſſerpour. The Hindoos, who were the original inhabitants of Sindy, and were reckoned to outnumber the Mahomedans, in the proportion of 10 to 1, in Capt. Hamilton's time, are treated with great rigour by their Mahomedan Governors; and are not permitted to erect any pagodas, or other places of worſhip: and this ſeverity drives vaſt numbers of them into other countries.

The gentleman from whom I had my information concerning the delta of the Indus, &c. went up the Indus as far as the city of Bhakor (or Behker) which is about two-thirds of the way to Moultan. He obſerved the moveable towns or villages on the banks of the river (noticed by Nearchus, and the Ayin Acbaree: ſee Introduction page xxx). Some of theſe are the habitations of fiſhermen, and others of graziers: and they are conſtantly changing their poſitions like a camp. Few rivers abound more with fiſh than the Indus does; and among theſe, are ſome very delicious ſorts.

Among the various tribes, that inhabit the hilly tracts bordering on the weſtern ſide of the Indus, there is according to my friend's account, one of the name of *Nomurdy*. They are of the Mahomedan religion; are freebooters, and very troubleſome to the villagers, and travellers. The Ayin Acbaree alſo takes particular notice of this tribe; and ſtates its ſtrength to be 7000 infantry, and 300 horſemen (about the year 1560). This being a part of the tract

* Mr. Fraſer, in his account of Nadir Shah, gives a copy of this partition treaty, by which the *Nulla Sunkra*, or *Sunkra* river was to be the common boundary between Hindooſtan and the Perſian provinces, near the mouth of the Indus. It may then, be inferred, that the eaſtern branch of the Indus is named the Sunkra river.

named INDO-SCYTHIA by the ancients, a doubt arifes whether they may not be the defcendants of the Scythian NOMADES; if the Scythians on the borders of Mount Imaus, did really call themfelves by that name; and that it was not a term applied to them by the Greeks *, alone. It may alfo be a queftion whether the graziers abovementioned, may not have derived their cuftom of moving their habitations, from Scythian anceftors: for the cuftom, as far as I know, does not prevail in the reft of India.

The upper part of the courfe of the Indus, is taken from M. D'Anville's map of Afia; as I know of no better authority. The towns on its banks are taken chiefly from the itinerary, mentioned in page 68; as is alfo the point of conflux of the Setlege (or Sutuluz) with the Indus. The latitude of Behker is given at 27° 12′ in this itinerary, which I have corrected to 27° 32′; for reafons given in pages 68 and 80. Finding Hajykan mentioned as one of the diftricts belonging to Sindy, in the Ayin Acbaree, and it being very clear that a large province of the fame name, lies on the weft of the Indus oppofite to Moultan, I can no otherwife reconcile thefe two accounts, than by fuppofing that Hajykan extends fouthward, along the Indus, until it meets the borders of Sindy; and that a fmall part of it was fubject to Sindy. In this cafe, the province of Behker muft be confined chiefly to the eaft fide of the Indus. No part of Hajykan is reckoned to belong either to Moultan or Candahar; in the Ayin Acbaree.

Cutch, is a territory of confiderable extent, fituated on the fouth-eaft of Sindy; the eaftern branch of the Indus feparating the two

* The following paffage occurs in M. D'Anville's *Eclairciffemens Géographiques fur la Carte de l'Inde*, p. 42. "On ignore le temps auquel les Scythes font venus occuper le Sindi. Dans le Périple de la mer Erythrée *, la ville de Minnagara, la même que Manfora †, eft qualifiée de capitale de la Scythie. Denys Périegète dit, que les Scythes méridionaux, habitent fur le fleuve Indus. Euftathe les nomme Indo-Scythes: & ce que Ptolémée appelle Indo-Scythie remonte le long de l'Indus jufqu' au fleuve Coas ‡.

* The Arabian fea, or fea of Omman.

† Bhakor or Behker, is the fame with the ancient Manfora—Ayin Acbaree.

‡ That which runs by Nagaz, and falls into the Indus a confiderable diftance below Attock; and which, according to my idea, is the Hir of the Perfians.

coun-

countries. It extends along the northern coaſt of the gulf of Cutch, and is ſeparated from Guzerat, by the Puddar river, or one of its branches. The preſent capital, and reſidence of its Rajah, is Boodge-boodge; and appears to be the place named Booz in Mr. Hornby's map, where it is placed about 34 G. miles to the eaſtward or E S E of the eaſtern branch of the Indus. Cutch is compoſed chiefly of hills, woods, and ſandy wilds: and we are utterly ignorant of any particulars relating to the interior part of it. The mouths of ſeveral rivers appear in the map of its coaſt: and the ancient maps deſcribe the Puddar river as diſcharging itſelf into the gulf of Cutch, through theſe openings. It is poſſible that the river formed by the Caggar and other ſtreams, may diſcharge itſelf by one or more of theſe openings; unleſs it loſes itſelf in the ſands of the deſert, which borders on the north of Cutch.

On the ſouth coaſt of the gulf of Cutch is a diſtrict inhabited by a piratical tribe named *Sangarians*, who cruiſe for merchant ſhips, as far to the weſt as the entrance of the gulf of Perſia. The capital of this ſtate, is Noanagur; and Bate (or Bait) and Aramroy, are its principal ports. The Ayin Acbaree takes notice of the founding of Noanagur, by a Rajah who was driven out of Cutch, about 280 years ago: and ſays that the territory in which it is ſituated, is named *Little Cutch*. No mention is made of *Sangarians*, in the ſame book: nor of any piracies being committed by the people of Noanagur.

Nearchus names certain parts of the country between the mouth of the Indus and the river Arabius, *Sangada* and *Saranga*; but the tract was too confined, to be the abode of a nation. M. D'Anville ſuppoſes that the country of *Sangada* *, was the ſame with the modern *Sangara:* if ſo, the Sangarians muſt firſt have removed from the weſtern, to the eaſtern ſide, of the Indus; and afterwards

* Eclairciſſemens. page 42.

muſt alſo have croſſed the gulf of Cutch. The latter fact, ſeems verified by the Ayin Acbaree.

I cannot omit to obſerve, in this place, how exactly the poſition and deſcription of the haven, named by Nearchus, the *port of Alexander*; and which had an iſland near it, named *Crocola*; agrees with that of *Crotchey*: and proves inconteſtibly, by the circumſtance of the proximity of the mountains to the ſea coaſt, when the fleet had advanced only 150 ſtadia from the mouth of the Indus, that Nearchus ſailed out of the weſtern branch of that river. However, one might conclude, from Arrian's account of Alexander's voyage down the two branches below Pattala, that he fixed on the eaſternmoſt branch, for Nearchus's fleet to proceed through, to the ocean; as Arrian calls it the *left* branch: but the circumſtance of Alexander's landing, with a *party of horſe*, and proceeding three days along the coaſt, in the direction that his fleet was to ſail, that is, weſtward, overthrows ſuch a ſuppoſition entirely: for no one will ſuppoſe that he choſe to march a party of horſe three days, along the coaſt of the delta, where he muſt have been continually interrupted by deep rivers and creeks.

CORRECTION *of the* COAST *of* ORISSA, *in the* MAP.

THE arrival of Capt. Ritchie in England, has enabled me to correct that part of the coaſt, between the mouth of the Kannaka river (on the north of Point Palmiras) and the moſt ſouthern branch of the Mahanuddy, or Cattack river; from a tracing of that coaſt, made by Capt. Ritchie, by order of Mr. Haſtings. From this chart it appears, that Point Palmiras is further to the eaſtward, in reſpect of Jagarnaut and Balaſore, than is warranted by the materials, diſ-

discuſſed in page 11: for by the late obſervations, it ought to be placed (at leaſt) in 87° 5′ longitude, inſtead of 87° 1′ 30″. A reference to the map will beſt explain the reſpective poſitions of the principal mouths of the Mahanuddy, and other rivers, between the black pagoda and Kannaka. It is proper to obſerve, that the coaſt was not traced home to the black pagoda; ſo that the *exact* poſition of Point Palmiras, is yet a *deſideratum*. Capt. Ritchie was informed, when at the ſouthmoſt opening of the Mahanuddy, that the black pagoda, was very near, on the ſouth-weſt. It was, however, out of ſight; but this may be accounted for, by the form of the coaſt, which projects in a very large curve, and might intercept the view of the pagoda, from a perſon cloſe under the ſhore, as Mr. Ritchie was: although the pagoda might not be many miles off. The ſouthmoſt mouth or opening of the Mahanuddy is in lat. 19° 54′: and is ſuppoſed to be about 19 miles to the eaſtward of Jagarnaut pagoda. The object of this examination, was, to enable the Government of Bengal, to fix on a proper ſpot for a light houſe, for the direction of ſhips round Point Palmiras, and into Balaſore road. Capt. Ritchie gave the preference to the point itſelf (named Mayaparah by the natives) but no light-houſe is yet erected. I believe the matter reſted with the merchants of Calcutta. The reef extends near 10 miles to the E N E of Point Palmiras, in the new chart. There was too much ſurf on the coaſt to allow his boat to land, ſo that he could not learn the names of the few villages that are diſperſed along the coaſt. He is pretty certain that no large river falls in between Point Palmiras and the falſe point.

INDEX

TO THE

MEMOIR.

*** The Names of Countries, or Nations, are in Roman Capitals; and the Names, or Titles of Princes, Rajahs, or Chiefs, in Italic ones. The Titles of Books, and the Names of Authors, as well as of other Persons whose Authorities are quoted, or whose Assistance has been acknowledged in the Course of the Work, are in Italics: and the Names of Places belonging to Ancient Geography, have an * prefixed to them. The Roman Figures, refer to the Introduction; and the Arabic ones, to the Memoir, and Appendix.

†‡† Abbreviations. Terrs. Territories. I. Island. R. River. Pt. Point. Mt. or Mts. Mountain, or Mountains.

A.

CABUL,

C.

H.

Irabatty,

K.

L.

MOGUL

Ootiam-

Q.

R.

S.

T.

Thomas

U.

W.

Y.

Z.

I N D E X

TO THE

M A P.

☞ The whole Map being divided into Squares, or Spaces, by the Interſections of the Parallels of Latitude with the Meridians, each particular Square is pointed out by Letters of Reference, alphabetically arranged along the Margins of the Map; the ſide Margins having Capital Letters, and the top and bottom ones, ſmall Letters. For inſtance, the City of DELHI is given in the Index under the Letters E o: and if the eye be guided along horizontally in the Map, from E, until it comes under o, the Square which contains DELHI will be found.

⁂ The Names of Countries, or Nations, are in Roman Capitals; and thoſe of Princes, Rajahs, or Chiefs, in Italic Capitals: and ſuch Places as have their Situations deſcribed in the Index only, and not in the Map (owing to want of room) are in Italics. Others have only a Part of their Names written in the Map: and the Part wanting, is alſo diſtinguiſhed by Italics in this Index. The Places without Names, in the Map, are left, in expectation of being able to ſupply the Names, hereafter.

††† Abbreviations. Terrs. Territories. I. Iſland. R. River. Pt. Point. Mt. or Mts. Mountain, or Mountains. F. Fort. G. Gaut, or Paſs.

Adli

Ardin-

INDEX TO THE MAP.

T t

Bud-

Ca-

INDEX TO THE MAP.

Co-

Cota-

D.

Dan-

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Doray

Friar's-

U u Goo-

H.

Him-

K.

Keheep

L.

INDEX TO THE MAP.

M.

Mal-

INDEX TO THE MAP.

Meſ-

O.

Onore

INDEX TO THE MAP.

Poo-

I

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Ram-

S.

Sala-

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Ser-

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Sit-

Y y

Tai-

INDEX TO THE MAP.

I

Tool-

U.

V.

OMISSIONS.

O M I S S I O N S.

ADDENDA, & ERRATA.

INTRODUCTION.

Page xxiv. line 2 from bottom, read, *and it will also prove*, &c.
—— xlvii. line 1, read *then*.—line 10, for *Mahrattas*, read, *founder of the Mahratta State, which about*, &c.
—— xlix. line 11, for 80, read 25.
—— lii. line 9 from bottom, after *Mahrattas*, read (*or rather that of MARHAT)*
—— liii. line 11, read 1316.
—— lvi. add a note on *Ferishta* *, line 14. [* That is to say, in his history of HINDOOSTAN; for in that of the DECCAN, he speaks very fully on the subject: but this latter has never yet been published in any European language. See note p. lxxix.]
—— lvii. line 7, read *furnish*
—— lviii. line 18, after *Mogul*, *dele* the comma.
—— lx. line 9 from bottom, for 1627, read 1628
—— lxi. Aurungzebe was the third son of Shah Jehan
—— *ibid*. and throughout, for *Sevagee* read *Sevajee*
—— lxiii line 8, read *exceeded*
—— lxxiv. The note refers to *Jewan Bucht*; not *Shah Aulum*
—— lxxx. line 5 from bottom, *dele* [he]
—— lxxxv. line 19, read *afterwards*
—— cxi. line 9, read *soubah*
—— cxiii. note, for 21,650, read 41,650
—— cxiv. line 3, to the sum, add *l*. for pounds sterling
—— cxxix. note on "*extending his conquests* *," line 6. [* The last accounts from India, inform us, that Sindia had been defeated by the confederated Rajpoots, on the side of Jyenagur and Joodypour: and that in consequence, he had retreated southward to Gwalior. They add, moreover, that the nominal Mogul, Shah Aulum, had taken the opportunity of escaping from Sindia's camp, to the Rohilla Chief of Sehaurunpour.]
—— cxxxvii. line 10 from bottom, read *per annum*

MEMOIR.

Page 10. line 2, after *longitude*, read, *the measurement giving so much more*, &c.
—— 13. line 4, read, *a flat coast, nearly straight* *.
—— *ibid*. last line, for *them*, read *it*
—— 14. line 1, for *their*, read *its*
—— 15. note, read *Wersebe*
—— 22. line 20, read *those*
—— 31. line 6 from bottom, read 72° 38′, and 72° 40′
—— 32. note, read *other temples cut out of the rock*
—— 62. line 7 from bottom, read *Pryaug, or Praig*
—— 66. line 9. [It appears that ancient Delhi stood on the same side of the Jumna, with the present city of that name. B.]
—— 68. line 16. [The map in question, was drawn by Lieut. Rind, of the Bengal establishment: as well as that of the roads in the Dooab, mentioned in page 66. B.]
—— 70. line 19, *dele* [western]
—— 78. line 9 from bottom. [Moultan city, has been garrisoned by the King of Candahar, since 1779. B.]
—— 81. and throughout, read *M. Petis de la Croix*

Page 89.

ADDENDA, & ERRATA.

Page 89. BATNIR. [This place is alſo named BATINDA, by the people of the Panjab. It is ſituated in a country famous for paſtures; and fine horſes. B] For this, and for the reſt of the notes marked B, I am indebted to Major James Browne of the Bengal eſtabliſhment.
—— 90. line 2, for *them*, read *then*
—— 96. line 9, for *in*, read *on*
—— 97. line 6, read [was *now* divided]
—— 102. In the map, read *Rauvee* river
—— 115. ſecond note, read *the ancient*
—— 117. line 5, *Guræus*. There is a diſtrict of the name of GURDEYS, in this quarter.
—— 125. line the laſt, read *as the Parthian boundaries*
—— 144. line 19, read *and between Bahar*, &c.
—— 155. line 6 from bottom, read *between Bilſah and Pannah*
—— 161. line 7 from bottom, for *the river*, read *it*
—— 174. laſt line, put a period, after authority
—— 175. line 19, read *journey*
—— 178. line 3, after *ſea*, read *in the next*
—— 182. line 12, for *are* read *is*
—— 190. line 8, read *commiſſioners*
—— 193. line 21, for *Now*, read *But*
—— 283. line 3, for *ſerves*, read *ſerve*
—— 289. laſt line, read *Gedroſia*
—— 291. line 2, read *compoſe the preſent empire of the Abdalli*, &c.
—— *ibid.* note, line 1, for *this*, read *the*.

FINIS.